WHAT IS CLAIMED IS:

1. A targeting ligand having a formula selected from the group consisting of Formula (I):

5

$$V = V = (CH_2)_q$$

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Formula (I)

and Formula (II):

$$Z$$
 $(CH_2)_q$
 R_2

Formula (II)

10 wherein

20

W is selected from the group consisting of $-C_{0-6}alkyl(R_1)$, $-C_{1-6}alkyl(R_{1a})$,

- $-C_{0-6}$ alkyl-aryl(R_1,R_8), $-C_{0-6}$ alkyl-heterocyclyl(R_1,R_8), $-C_{0-6}$ alkoxy(R_1),
- $-C_{0-6}$ alkoxy-aryl(R_1,R_8), and $-C_{0-6}$ alkoxy-heterocyclyl(R_1,R_8);
- 15 R_1 is selected from the group consisting of hydrogen, $-N(R_4)_2$, $-N(R_4)(R_5)$, $-N(R_4)(R_6)$, -heterocyclyl(R_8) and -heteroaryl(R_8);

 R_{1a} is selected from the group consisting of $-C(R_4)(=N-R_4)$, $-C(=N-R_4)-N(R_4)_2$,

$$-C(=N-R_4)-N(R_4)(R_6)$$
, $-C(=N-R_4)-N(R_4)-C(=O)-R_4$,

$$-C(=N-R_4)-N(R_4)-C(=O)-N(R_4)_2$$
, $-C(=N-R_4)-N(R_4)-CO_2-R_4$,

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-C(=N-R_4)-N(R_4)-SO_2-C_{1.8}alkyl(R_7) and -C(=N-R_4)-N(R_4)-SO_2-N(R_4)_2;
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 R_4 is selected from the group consisting of hydrogen and $-C_{1-8}$ alkyl(R_7);

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5 R<sub>5</sub> is selected from the group consisting of -C(=O)-R<sub>4</sub>, -C(=O)-N(R<sub>4</sub>)<sub>2</sub>,
-C(=O)-cycloalkyl(R<sub>8</sub>), -C(=O)-heterocyclyl(R<sub>8</sub>), -C(=O)-aryl(R<sub>8</sub>),
-C(=O)-heteroaryl(R<sub>8</sub>), -C(=O)-N(R<sub>4</sub>)-cycloalkyl(R<sub>8</sub>), -C(=O)-N(R<sub>4</sub>)-aryl(R<sub>8</sub>),
-CO<sub>2</sub>-R<sub>4</sub>, -CO<sub>2</sub>-cycloalkyl(R<sub>8</sub>), -CO<sub>2</sub>-aryl(R<sub>8</sub>), -C(R<sub>4</sub>)(=N-R<sub>4</sub>), -C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)<sub>2</sub>,
-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)(R<sub>6</sub>), -C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-C(=O)-R<sub>4</sub>,

10 -C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-C(=O)-N(R<sub>4</sub>)<sub>2</sub>, -C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-CO<sub>2</sub>-R<sub>4</sub>,
-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-SO<sub>2</sub>-C<sub>1-8</sub>alkyl(R<sub>7</sub>), -C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-SO<sub>2</sub>-N(R<sub>4</sub>)<sub>2</sub>,
-N(R<sub>4</sub>)-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-C(=O)-N(R<sub>4</sub>)<sub>2</sub>,
-N(R<sub>4</sub>)-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-C(=O)-R<sub>4</sub>, -N(R<sub>4</sub>)-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-C(=O)-N(R<sub>4</sub>)<sub>2</sub>,
-N(R<sub>4</sub>)-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-CO<sub>2</sub>-R<sub>4</sub>, -N(R<sub>4</sub>)-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-SO<sub>2</sub>-C<sub>1-8</sub>alkyl(R<sub>7</sub>),
-N(R<sub>4</sub>)-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-SO<sub>2</sub>-N(R<sub>4</sub>)<sub>2</sub>, -SO<sub>2</sub>-C<sub>1-8</sub>alkyl(R<sub>7</sub>), -SO<sub>2</sub>-N(R<sub>4</sub>)<sub>2</sub>,
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 $-SO_2$ -cycloalkyl(R_8) and $-SO_2$ -aryl(R_8);

 R_6 is selected from the group consisting of -cycloalkyl(R_8), -heterocyclyl(R_8), -aryl(R_8) and -heteroaryl(R_8);

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25

 $R_7 \text{ is one to two substituents independently selected from the group consisting of hydrogen, } -C_{1-8}alkoxy(R_9), -NH_2, -NH_2-C_{1-8}alkyl(R_9), -N(C_{1-8}alkyl(R_9))_2, -C(=O)H, \\ -C(=O)-C_{1-8}alkyl(R_9), -C(=O)-NH_2, -C(=O)-NH_2-C_{1-8}alkyl(R_9), \\ -C(=O)-N(C_{1-8}alkyl(R_9))_2, -C(=O)-NH_2-aryl(R_{10}), -C(=O)-cycloalkyl(R_{10}), \\ -C(=O)-heterocyclyl(R_{10}), -C(=O)-aryl(R_{10}), -C(=O)-heteroaryl(R_{10}), -CO_2H, \\ -CO_2-C_{1-8}alkyl(R_9), -CO_2-aryl(R_{10}), -C(=NH)-NH_2, -SH, -S-C_{1-8}alkyl(R_9), \\ -S-C_{1-8}alkyl-S-C_{1-8}alkyl(R_9), -S-C_{1-8}alkyl-C_{1-8}alkyl(R_9), \\ -S-C_{1-8}alkyl-NH_2-C_{1-8}alkyl(R_9), -SO_2-C_{1-8}alkyl(R_9), -SO_2-NH_2, \\ \end{array}$

-SO₂-NH-C₁₋₈alkyl(R₉), -SO₂-N(C₁₋₈alkyl(R₉))₂, -SO₂-aryl(R₁₀), cyano, (halo)₁₋₃, hydroxy, nitro, oxo, -cycloalkyl(R₁₀), -heterocyclyl(R₁₀), -aryl(R₁₀) and -heteroaryl(R₁₀);

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R<sub>8</sub> is one to four substituents independently selected from the group consisting of
               hydrogen, -C_{1-8}alkyl(R_9), -C(=O)H, -C(=O)-C_{1-8}alkyl(R_9), -C(=O)-NH_2,
               -C(=O)-NH-C_{1-8}alkyl(R_9), -C(=O)-N(C_{1-8}alkyl(R_9))_2, -C(=O)-NH-aryl(R_{10}),
               -C(=O)-cycloalkyl(R_{10}), -C(=O)-heterocyclyl(R_{10}), -C(=O)-aryl(R_{10}),
               -C(=O)-heteroaryl(R_{10}), -CO_2H, -CO_2-C_{1-8}alkyl(R_9), -CO_2-aryl(R_{10}), -C(=NH)-NH_2,
 5
               -SO_2-C_{1-8}alkyl(R<sub>9</sub>), -SO_2-NH_2, -SO_2-NH-C_{1-8}alkyl(R<sub>9</sub>), -SO_2-N(C_{1-8}alkyl(R<sub>9</sub>))<sub>2</sub>,
               -SO_2-aryl(R_{10}), -cycloalkyl(R_{10}) and -aryl(R_{10}) when attached to a nitrogen atom;
               and, wherein R<sub>8</sub> is one to four substituents independently selected from the group
               consisting of hydrogen, -C_{1-8}alkyl(R_9), -C_{1-8}alkoxy(R_9), -O-cycloalkyl(R_{10}),
10
               -O-aryl(R_{10}), -C(=O)H, -C(=O)-C_{1-8}alkyl(R_{9}), -NHC(=O)-C_{1-8}alkyl(R_{9}),
               -C(=O)-NH_2, -C(=O)-NH-C_{1-8}alkyl(R_9), -C(=O)-N(C_{1-8}alkyl(R_9))_2,
               -C(=O)-NH-aryl(R_{10}), -NHC(=O)-NH_2, -NHC(=O)-NH-C_{1-8}alkyl(R_9),
               -NHC(=O)-N(C_{1-8}alkyl(R_9))_2, -NHC(=O)-NH-aryl(R_{10}),
               -NHC(=O)-O-C_{1.8}alkyl(R_9), -NHC(=O)-O-aryl(R_{10}), -C(=O)-cycloalkyl(R_{10}),
15
               -C(=O)-heterocyclyl(R_{10}), -C(=O)-aryl(R_{10}), -C(=O)-heteroaryl(R_{10}),
               -NHC(=O)-cycloalkyl(R_{10}), -NHC(=O)-heterocyclyl(R_{10}), -NHC(=O)-aryl(R_{10}),
               -NHC(=O)-heteroaryl(R_{10}), -CO_2H, -CO_2-C_{1-8}alkyl(R_9), -CO_2-aryl(R_{10}),
               -C(=NH)-NH_2, -SO_2-C_{1-8}alkyl(R_9), -SO_2-NH_2, -SO_2-NH-C_{1-8}alkyl(R_9),
               -SO_2-N(C_{1-8}alkyl(R_9))_2, -SO_2-aryl(R_{10}), -NHSO_2-C_{1-8}alkyl(R_9), -NHSO_2-aryl(R_{10}),
20
               -SH, -S-C_{1-8}alkyl(R_9), -S-C_{1-8}alkyl-S-C_{1-8}alkyl(R_9), -S-C_{1-8}alkyl-C_{1-8}alkoxy(R_9),
               -S-C_{1-8}alkyl-NH-C_{1-8}alkyl(R_9), -NH_2, -NH-C_{1-8}alkyl(R_9), -N(C_{1-8}alkyl(R_9))<sub>2</sub>, cyano,
               halo, hydroxy, nitro, oxo, -cycloalkyl(R_{10}), -heterocyclyl(R_{10}), -aryl(R_{10}), and
               -heteroaryl(R_{10}) when attached to a carbon atom;
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- R₉ is selected from the group consisting of hydrogen, -C₁₋₈alkoxy, -NH₂, -NH-C₁₋₈alkyl, -N(C₁₋₈alkyl)₂, -C(=O)H, -C(=O)-NH₂, -C(=O)-NH-C₁₋₈alkyl, -C(=O)-N(C₁₋₈alkyl)₂, -CO₂H, -CO₂-C₁₋₈alkyl, -SO₂-C₁₋₈alkyl, -SO₂-NH₂, -SO₂-NH-C₁₋₈alkyl, -SO₂-N(C₁₋₈alkyl)₂, cyano, (halo)₁₋₃, hydroxy, nitro and oxo;
- R₁₀ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₈alkyl, -C(=O)H, -C(=O)-C₁₋₈alkyl, -C(=O)-NH₂, -C(=O)-NH-C₁₋₈alkyl, -C(=O)-N(C₁₋₈alkyl)₂, -CO₂H, -CO₂- C₁₋₄alkyl,

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-SO_2-C_{1-8}alkyl, -SO_2-NH_2, -SO_2-NH-C_{1-8}alkyl and -SO_2-N(C_{1-8}alkyl) when
                 attached to a nitrogen atom; and, wherein R<sub>10</sub> is one to four substituents
                 independently selected from the group consisting of hydrogen, -C<sub>1-8</sub>alkyl,
                 -C_{1-8}alkoxy, -C(=O)H, -C(=O)-C_{1-8}alkyl, -C(=O)-NH_2, -C(=O)-NH-C_{1-8}alkyl,
 5
                 -C(=O)-N(C_{1-8}alkyl)_2, -CO_2H, -CO_2-C_{1-4}alkyl, -SO_2-C_{1-8}alkyl, -SO_2-NH_2,
                 -SO_2-NH-C_{1-8}alkyl, -SO_2-N(C_{1-8}alkyl)_2, -NH_2, -NH-C_{1-8}alkyl, -N(C_{1-8}alkyl)_2, cyano,
                 halo, hydroxy, nitro and oxo when attached to a carbon atom;
            q is 0, 1, 2, or 3;
10
             R_{2a} is selected from the group consisting of -C_{1-8}alkyl(R_7)(R_{11}), -C_{2-8}alkenyl(R_7)(R_{11}).
                 -C_{2-8}alkynyl(R_7)(R_{11}), -cycloalkyl(R_7)(R_{11}), -heterocyclyl(R_8)(R_{12}), -aryl(R_8)(R_{12}) and
                 -heteroaryl(R_8)(R_{12});
15
            R_{11} is selected from the group consisting of -C_{1-8}alkyl(R_{14}),
                  -O-C_{1-8}alkyl(R_{14}), -NH-C_{1-8}alkyl(R_{14}), -S-C_{1-8}alkyl(R_{14}), -C(=O)C_{1-8}alkyl(R_{14}),
                 -O-C(=O)C_{1-8}alkyl(R_{14}), -NH-C(=O)C_{1-8}alkyl(R_{14}), -C(=O)OC_{1-8}alkyl(R_{14}),
                 -C(=O)NHC_{1-8}alkyl(R_{14}), -O-C(=O)OC_{1-8}alkyl(R_{14}),
                 -O-C(=O)NHC_{1-8}alkyl(R_{14}), -NH-C(=O)OC_{1-8}alkyl(R_{14}),
20
                 -NH-C(=O)NHC_{1-8}alkyl(R_{14}), -C(=O)C_{1-8}alkylC(=O)(R_{14}),
                 -O-C(=O)C_{1-8}alkylC(=O)(R_{14}), -NH-C(=O)C_{1-8}alkylC(=O)(R_{14}),
                 -C(=O)OC_{1-8}alkylC(=O)(R_{14}), -O-C(=O)OC_{1-8}alkylC(=O)(R_{14}),
                 -NH-C(=O)OC_{1-8}alkylC(=O)(R_{14}), -C(=O)NHC_{1-8}alkylC(=O)(R_{14}),
                 -O-C(=O)NHC_{1.8}alkylC(=O)(R_{14}), -NH-C(=O)NHC_{1.8}alkylC(=O)(R_{14}),
25
                 -OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                 -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                 -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                 -OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
                 -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>14</sub>),
30
                 -SCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
                 -OC(=O)CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
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 $-OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),$

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-OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                  -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                 -NHC(=O)OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R_{14}),
                 -NHC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
 5
                  -SO_2CH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                  -SO<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                  -C(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
                  -OC(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
                  -OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
10
                  -OC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
                  -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
                  -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
                 -NHC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>14</sub>),
                  -SO_2CH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}), and
15
                 -SO_2NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14});
             R_{12} is selected from the group consisting of -C_{1-8}alkyl(R_{14}), -O-C_{1-8}alkyl(R_{14}),
                 -NH-C_{1-8}alkyl(R_{14}), -S-C_{1-8}alkyl(R_{14}), -CH_2O-C_{1-8}alkyl(R_{14}),
                  -CH_2NH-C_{1-8}alkyl(R_{14}), -CH_2S-C_{1-8}alkyl(R_{14}), -C(=O)C_{1-8}alkyl(R_{14}),
20
                 -O-C(=O)C_{1-8}alkyl(R_{14}), -NH-C(=O)C_{1-8}alkyl(R_{14}),
                 -CH_2O-C(=O)C_{1-8}alkyl(R_{14}), -CH_2NH-C(=O)C_{1-8}alkyl(R_{14}),
                 -C(=O)OC_{1-8}alkyl(R_{14}), -C(=O)NHC_{1-8}alkyl(R_{14}),
                 -O-C(=O)OC_{1-8}alkyl(R_{14}), -O-C(=O)NHC_{1-8}alkyl(R_{14}),
                 -NH-C(=O)OC_{1-8}alkyl(R_{14}), -NH-C(=O)NHC_{1-8}alkyl(R_{14}),
25
                 -CH_2O-C(=O)OC_{1-8}alkyl(R_{14}), -CH_2O-C(=O)NHC_{1-8}alkyl(R_{14}),
                 -CH_2NH-C(=O)OC_{1-8}alkyl(R_{14}), -CH_2NH-C(=O)NHC_{1-8}alkyl(R_{14}),
                 -C(=O)C_{1-8}alkylC(=O)(R_{14}), -O-C(=O)C_{1-8}alkylC(=O)(R_{14}),
                 -NH-C(=O)C_{1-8}alkylC(=O)(R_{14}), -CH_2O-C(=O)C_{1-8}alkylC(=O)(R_{14}),
                 -CH_2NH-C(=O)C_{1-8}alkylC(=O)(R_{14}), -C(=O)OC_{1-8}alkylC(=O)(R_{14}),
30
                 -O-C(=O)OC_{1-8}alkylC(=O)(R_{14}), -NH-C(=O)OC_{1-8}alkylC(=O)(R_{14}),
                 -CH_2O-C(=O)OC_{1-8}alkylC(=O)(R_{14}), -CH_2NH-C(=O)OC_{1-8}alkylC(=O)(R_{14}),
                 -C(=O)NHC_{1-8}alkylC(=O)(R_{14}), -O-C(=O)NHC_{1-8}alkylC(=O)(R_{14}),
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-NH-C(=O)NHC_{1-8}alkylC(=O)(R_{14}), -CH_2O-C(=O)NHC_{1-8}alkylC(=O)(R_{14}).
                           -CH<sub>2</sub>NH-C(=O)NHC<sub>1-8</sub>alkylC(=O)(R<sub>14</sub>),
                           -OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                           -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
  5
                           -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                           -OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>14</sub>),
                           -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>14</sub>),
                           -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>14</sub>),
                           -OC(=O)CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
10
                           -OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                           -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                           -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                           -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                           -NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                           -SO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
15
                           -SO_2NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                           -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                           -CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                           -CH<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
20
                           -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>14</sub>),
                           -CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>14</sub>),
                           -CH<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>14</sub>),
                           -CH_2OC(=O)CH_2O(CH_2CH_2O)_{r}CH_2CH_2(R_{14}),
                           -CH<sub>2</sub>OC(=O)OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
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                           -CH<sub>2</sub>OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                           -CH<sub>2</sub>NH(C=O)CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                           -CH<sub>2</sub>NHC(=O)OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                           -CH_2NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                           -C(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
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                           -OC(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
                           -OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
                           -OC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
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- $-NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),$
- $-NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),$
- -NHC(=O)NHCH₂CH₂O(CH₂CH₂O)_rCH₂C(=O)(R₁₄),
- $-SO_2CH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),$
- 5 $-SO_2NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),$
 - $-CH_2OC(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),$
 - $-CH_2OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),$
 - $-CH_2OC(=O)NHCH_2CH_2O(CH_2CH_2O)_{r}CH_2C(=O)(R_{14}),$
 - $-CH_2NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),$
 - -CH₂NHC(=O)OCH₂CH₂O(CH₂CH₂O)_rCH₂C(=O)(R₁₄), and
 - $-CH_2NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14});$

 R_{14} when R_{11} and R_{12} terminates with a C(=O)is selected from the group consisting of hydrogen, OH, , -OC₁₋₄alkyl and NH₂; otherwise R_{14} is selected from the group consisting of -OH, -SH, COOH, and -COOC₁₋₄alkyl;

Z is selected from the group consisting of hydroxy, -NH₂, -NH-C₁₋₈alkyl,
-N(C₁₋₈alkyl)₂, -O-C₁₋₈alkyl, -O-C₁₋₈alkyl-OH, -O-C₁₋₈alkylC₁₋₈alkoxy, -OC₁₋₈alkylcarbonylC₁₋₈alkyl, -O-C₁₋₈alkyl-CO₂H, -O-C₁₋₈alkyl-C(O)O-C₁₋₈alkyl, -OC₁₋₈alkyl-O-C(O)C₁₋₈alkyl, -O-C₁₋₈alkyl-NH₂, -O-C₁₋₈alkyl-NH-C₁₋₈alkyl, -OC₁₋₈alkyl-N(C₁₋₈alkyl)₂, -O-C₁₋₈alkylamide, -O-C₁₋₈alkyl-C(O)-NH-C₁₋₈alkyl, -O-C₁₋₈alkyl-C(O)-N(C₁₋₈alkyl)₂ and -NHC(O)C₁₋₈alkyl;

and pharmaceutically acceptable salts, racemic mixtures and enantiomers thereof.

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- 2. The targeting ligand of claim 1 wherein W is selected from the group consisting of $-C_{0-4}$ alkyl(R_1) and $-C_{0-4}$ alkyl-aryl(R_1 , R_8).
- 3. The targeting ligand of claim 1 wherein W is $-C_{0.4}$ alkyl(R₁) or $-C_{0.4}$ alkyl-phenyl(R₁,R₈).
 - 4. The targeting ligand of claim 1 wherein R₁ is selected from the group consisting

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of $-N(R_4)(R_6)$, -heterocyclyl(R_8) and -heteroaryl(R_8).

- The targeting ligand of claim 1 wherein R₁ is selected from the group consisting of -N(R₄)(R₆), -dihydro-1*H*-pyrrolo[2,3-*b*]pyridinyl(R₈),
 -tetrahydropyrimidinyl(R₈), -tetrahydro-1,8-naphthyridinyl(R₈),
 -tetrahydro-1*H*-azepino[2,3-*b*]pyridinyl(R₈) and -pyridinyl(R₈).
 - 6. The targeting ligand of claim 1 wherein R_1 is selected from the group consisting of $-N(R_4)(R_6)$, -tetrahydropyrimidinyl(R_8) and -tetrahydro-1,8-naphthyridinyl(R_8).
- 7. The targeting ligand of claim 1 wherein R_{1a} is selected from the group consisting of -C(R₄)(=N-R₄), -C(=N-R₄)-N(R₄)₂, -C(=N-R₄)-N(R₄)(R₆), -C(=N-R₄)-N(R₄)-C(=O)-R₄, -C(=N-R₄)-N(R₄)-C(=O)-N(R₄)₂, -C(=N-R₄)-N(R₄)-CO₂-R₄, -C(=N-R₄)-N(R₄)-SO₂-C₁₋₄alkyl(R₇) and -C(=N-R₄)-N(R₄)-SO₂-N(R₄)₂.
 - 8. The targeting ligand of claim 1 wherein R_4 is selected from the group consisting of hydrogen and $-C_{1-4}$ alkyl (R_7) .
 - 9. The targeting ligand of claim 1 wherein R₄ is hydrogen.
- 10. The targeting ligand of claim 1 wherein R₅ is selected from the group consisting of -C(=O)-R₄, -C(=O)-N(R₄)₂, -C(=O)-cycloalkyl(R₈), -C(=O)-heterocyclyl(R₈), -C(=O)-aryl(R₈), -C(=O)-heteroaryl(R₈), -C(=O)-N(R₄)-cycloalkyl(R₈), -C(=O)-N(R₄)-aryl(R₈), -CO₂-R₄, -CO₂-cycloalkyl(R₈), -CO₂-aryl(R₈), -C(R₄)(=N-R₄), -C(=N-R₄)-N(R₄)₂, -C(=N-R₄)-N(R₄)(R₆), -C(=N-R₄)-N(R₄)-C(=O)-R₄, -C(=N-R₄)-N(R₄)-C(=O)-N(R₄)₂, -C(=N-R₄)-N(R₄)-C(=O)-R₄, -C(=N-R₄)-N(R₄)-SO₂-C₁₋₄alkyl(R₇), -C(=N-R₄)-N(R₄)-SO₂-N(R₄)₂, -N(R₄)-C(R₄)(=N-R₄), -N(R₄)-C(=N-R₄)-N(R₄)₂, -N(R₄)-C(=N-R₄)-N(R₄)-C(=O)-R₄, -N(R₄)-C(=N-R₄)-N(R₄)-C(=O)-R₄, -N(R₄)-C(=N-R₄)-N(R₄)-C(=O)-R₄, -N(R₄)-C(=N-R₄)-N(R₄)-C(=O)-R₄, -N(R₄)-C(=N-R₄)-N

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-N(R_4)-C(=N-R_4)-N(R_4)-SO_2-C_{1-4}alkyl(R_7),\\ -N(R_4)-C(=N-R_4)-N(R_4)-SO_2-N(R_4)_2, -SO_2-C_{1-4}alkyl(R_7), -SO_2-N(R_4)_2,\\ -SO_2-cycloalkyl(R_8) \ and \ -SO_2-aryl(R_8).
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- 5 11. The targeting ligand of claim 1 wherein R_5 is selected from the group consisting of $-C(=O)-R_4$, $-C(=O)-N(R_4)_2$, $-CO_2-R_4$, $-C(R_4)(=N-R_4)$, $-C(=N-R_4)-N(R_4)_2$, $-C(=N-R_4)-N(R_4)(R_6)$, $-N(R_4)-C(R_4)(=N-R_4)$, $-N(R_4)-C(=N-R_4)-N(R_4)_2$, $-N(R_4)-C(=N-R_4)-N(R_4)(R_6)$, $-SO_2-C_{1.4}$ alkyl(R_7) and $-SO_2-N(R_4)_2$.
- 10 12. The targeting ligand of claim 1 wherein R_6 is selected from the group consisting of -heterocyclyl(R_8) and -heteroaryl(R_8).
 - 13. The targeting ligand of claim 1 wherein R_6 is selected from the group consisting of -dihydroimidazolyl(R_8), -tetrahydropyridinyl(R_8), -tetrahydropyrimidinyl(R_8) and -pyridinyl(R_8).
- 14. The targeting ligand of claim 1 wherein R₇ is one to two substituents independently selected from the group consisting of hydrogen, -C₁₋₄alkoxy(R₉), -NH₂, -NH-C₁₋₄alkyl(R₉), -N(C₁₋₄alkyl(R₉))₂, -C(=O)H, -C(=O)-C₁₋₄alkyl(R₉), -C(=O)-NH₂, -C(=O)-NH-C₁₋₄alkyl(R₉), -C(=O)-N(C₁₋₄alkyl(R₉))₂, -C(=O)-NH-aryl(R₁₀), -C(=O)-cycloalkyl(R₁₀), -C(=O)-heterocyclyl(R₁₀), -C(=O)-heteroaryl(R₁₀), -CO₂H, -CO₂-C₁₋₄alkyl(R₉), -CO₂-aryl(R₁₀), -C(=NH)-NH₂, -SH, -S-C₁₋₄alkyl(R₉), -S-C₁₋₄alkyl(R₉), -S-C₁₋₄alkyl-S-C₁₋₄alkyl(R₉), -S-C₁₋₄alkyl-C₁₋₄alkoxy(R₉), -S-C₁₋₄alkyl-NH-C₁₋₄alkyl(R₉), -SO₂-C₁₋₄alkyl(R₉), -SO₂-NH₂, -SO₂-NH-C₁₋₄alkyl(R₉), -SO₂-N(C₁₋₄alkyl(R₉))₂, -SO₂-aryl(R₁₀), cyano, (halo)₁₋₃, hydroxy, nitro, oxo, -cycloalkyl(R₁₀), -heterocyclyl(R₁₀), -aryl(R₁₀)
- The targeting ligand of claim 1 wherein R₇ is one to two substituents independently selected from the group consisting of hydrogen, -C₁₋₄alkoxy(R₉), -NH₂, -NH-C₁₋₄alkyl(R₉), -N(C₁₋₄alkyl(R₉))₂, (halo)₁₋₃, hydroxy and oxo.

and -heteroaryl(R_{10}).

16. The targeting ligand of claim 1 wherein R_7 is hydrogen.

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The targeting ligand of claim 1 wherein R<sub>8</sub> is one to four substituents
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                    independently selected from the group consisting of hydrogen, -C<sub>1-4</sub>alkyl(R<sub>9</sub>),
                    -C(=O)H, -C(=O)-C_{1-4}alkyl(R_9), -C(=O)-NH_2, -C(=O)-NH-C_{1-4}alkyl(R_9),
                    -C(=O)-N(C_{1-4}alkyl(R_9))_2, -C(=O)-NH-aryl(R_{10}), -C(=O)-cycloalkyl(R_{10}),
                    -C(=O)-heterocyclyl(R_{10}), -C(=O)-aryl(R_{10}), -C(=O)-heteroaryl(R_{10}), -CO<sub>2</sub>H,
                    -CO_2-C_{1-4}alkyl(R_9), -CO_2-aryl(R_{10}), -C(=NH)-NH_2, -SO_2-C_{1-4}alkyl(R_9),
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                    -SO_2-NH_2, -SO_2-NH-C_{1-4}alkyl(R_9), -SO_2-N(C_{1-4}alkyl(R_9))_2, -SO_2-aryl(R_{10}),
                    -cycloalkyl(R_{10}) and -aryl(R_{10}) when attached to a nitrogen atom; and, wherein
                    R<sub>8</sub> is one to four substituents independently selected from the group consisting
                    of hydrogen, -C_{1-4}alkyl(R_9), -C_{1-4}alkoxy(R_9), -O-cycloalkyl(R_{10}), -O-aryl(R_{10}),
                    -C(=O)H, -C(=O)-C_{1-4}alkyl(R_9), -C(=O)-NH_2, -C(=O)-NH-C_{1-4}alkyl(R_9),
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                    -C(=O)-N(C_{1-4}alkyl-R_{11})_2, -C(=O)-NH-aryl(R_{10}), -C(=O)-cycloalkyl(R_{10}),
                    -C(=O)-heterocyclyl(R_{10}), -C(=O)-aryl(R_{10}), -C(=O)-heteroaryl(R_{10}), -CO_2H,
                    -CO_2-C_{1-4}alkyl(R_9), -CO_2-aryl(R_{10}), -C(=NH)-NH_2, -SO_2-C_{1-4}alkyl(R_9),
                    -SO_2-NH_2, -SO_2-NH-C_{1-4}alkyl(R_9), -SO_2-N(C_{1-4}alkyl(R_9))_2, -SO_2-aryl(R_{10}),
                    -SH, -S-C_{1-4}alkyl(R_9), -S-C_{1-4}alkyl-S-C_{1-4}alkyl(R_9), -S-C_{1-4}alkyl-C_{1-4}alkoxy(R_9),
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                    -S-C_{1-4}alkyl-NH-C_{1-4}alkyl(R_9), -NH_2, -NH-C_{1-4}alkyl(R_9), -N(C_{1-4}alkyl(R_9))<sub>2</sub>,
                    cyano, halo, hydroxy, nitro, oxo, -cycloalkyl(R_{10}), -heterocyclyl(R_{10}), -aryl(R_{10})
                    and -heteroaryl(R_{10}) when attached to a carbon atom.
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18. The targeting ligand of claim 1 wherein R₈ is one to four substituents

25 independently selected from the group consisting of hydrogen, -C₁₋₄alkyl(R₉),
-C(=O)H, -C(=O)-NH₂, -C(=O)-NH-C₁₋₄alkyl(R₉), -C(=O)-N(C₁₋₄alkyl(R₉))₂,
-CO₂H, -CO₂-C₁₋₄alkyl(R₉) and -SO₂-NH₂ when attached to a nitrogen atom;
and, wherein R₈ is one to four substituents independently selected from the
group consisting of hydrogen, -C₁₋₄alkyl(R₉), -C₁₋₄alkoxy(R₉), -O-aryl(R₁₀),
-C(=O)H, -C(=O)-NH₂, -C(=O)-NH-C₁₋₄alkyl(R₉), -C(=O)-N(C₁₋₄alkyl(R₉))₂,
-CO₂H, -CO₂-C₁₋₄alkyl(R₉), -SO₂-NH₂, -NH₂, -NH-C₁₋₄alkyl(R₉),
-N(C₁₋₄alkyl(R₉))₂, cyano, halo, hydroxy, nitro and oxo when attached to a

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carbon atom.

- 19. The targeting ligand of claim 1 wherein R₈ is one to four substituents independently selected from the group consisting of hydrogen and -C₁₋₄alkyl(R₉) when attached to a nitrogen atom; and, wherein R₈ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₄alkyl(R₉), -C₁₋₄alkoxy(R₉), -O-aryl(R₁₀), -NH₂, -NH-C₁₋₄alkyl(R₉), -N(C₁₋₄alkyl(R₉))₂, halo, hydroxy and oxo when attached to a carbon atom.
- 10 20. The targeting ligand of claim 1 wherein R₈ is one to four substituents independently selected from the group consisting of hydrogen and -C₁₋₄alkyl(R₉) when attached to a nitrogen atom; and, wherein R₈ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₄alkyl(R₉), -C₁₋₄alkoxy(R₉), -O-aryl(R₁₀) and hydroxy when attached to a carbon atom.
 - 21. The targeting ligand of claim 1 wherein R₉ is selected from the group consisting of hydrogen, -C₁₋₄alkoxy, -NH₂, -NH-C₁₋₄alkyl, -N(C₁₋₄alkyl)₂, -C(=O)H, -C(=O)-NH₂, -C(=O)-NH-C₁₋₄alkyl, -C(=O)-N(C₁₋₄alkyl)₂, -CO₂H, -CO₂-C₁₋₄alkyl, -SO₂-C₁₋₄alkyl, -SO₂-NH₂, -SO₂-NH-C₁₋₄alkyl, -SO₂-N(C₁₋₄alkyl)₂, cyano, (halo)₁₋₃, hydroxy, nitro and oxo.
 - 22. The targeting ligand of claim 1 wherein R₉ is selected from the group consisting of hydrogen, -C₁₋₄alkoxy, -NH₂, -NH-C₁₋₄alkyl, -N(C₁₋₄alkyl)₂, -C(=O)H, -CO₂H, -C(=O)-C₁₋₄alkoxy, (halo)₁₋₃, hydroxy and oxo.
 - 23. The targeting ligand of claim 1 wherein R₉ is selected from the group consisting of hydrogen, -C₁₋₄alkoxy, -NH₂, -NH-C₁₋₄alkyl, -N(C₁₋₄alkyl)₂, (halo)₁₋₃ and hydroxy.
 - 24. The targeting ligand claim 1 wherein R₁₀ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₄alkyl,

-C(=O)H, -C(=O)-C₁₋₄alkyl, -C(=O)-NH₂, -C(=O)-NH-C₁₋₄alkyl,
-C(=O)-N(C₁₋₄alkyl)₂, -CO₂H, -CO₂-C₁₋₄alkyl, -SO₂-C₁₋₄alkyl, -SO₂-NH₂,
-SO₂-NH-C₁₋₄alkyl and -SO₂-N(C₁₋₄alkyl)₂ when attached to a nitrogen atom;
and, wherein R₁₀ is one to four substituents independently selected from the
group consisting of hydrogen, -C₁₋₄alkyl, -C₁₋₄alkoxy, -C(=O)H,
-C(=O)-C₁₋₄alkyl, -C(=O)-NH₂, -C(=O)-NH-C₁₋₄alkyl, -C(=O)-N(C₁₋₄alkyl)₂,
-CO₂H, -CO₂-C₁₋₄alkyl, -SO₂-C₁₋₄alkyl, -SO₂-NH₂, -SO₂-NH-C₁₋₄alkyl,
-SO₂-N(C₁₋₄alkyl)₂, -NH₂, -NH-C₁₋₄alkyl, -N(C₁₋₄alkyl)₂, cyano, halo, hydroxy, nitro and oxo when attached to a carbon atom.

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25. The targeting ligand of claim 1 wherein (R₁₀)₁₋₄ is selected from the group consisting of hydrogen, -C₁₋₄alkyl, -C₁₋₄alkoxy, -C(=O)H, -C(=O)-C₁₋₄alkyl, -CO₂H, -CO₂-C₁₋₄alkyl, -NH₋₂ -NH-C₁₋₄alkyl, -N(C₁₋₄alkyl)₂, halo, hydroxy, nitro and oxo when attached to a carbon atom.

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26. The targeting ligand of claim 1 wherein R_{10} is hydrogen.

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27. The targeting ligand of claim 1 wherein R_{2a} is selected from the group consisting of $-C_{1-4}$ alkyl $(R_7)(R_{11})$, $-C_{2-4}$ alkenyl $(R_7)(R_{11})$, $-C_{2-4}$ alkynyl $(R_7)(R_{11})$, $-cycloalkyl(R_7)(R_{11})$, -heterocyclyl $(R_8)(R_{12})$, -aryl $(R_8)(R_{12})$, and -heteroaryl $(R_8)(R_{12})$.

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28. The targeting ligand of claim 1 wherein R_{2a} is selected from the group consisting of -cycloalkyl(R_7)(R_{11}), -heterocyclyl(R_8)(R_{12}), -aryl(R_8)(R_{12}), and -heteroaryl(R_8)(R_{11}).

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29. The targeting ligand of claim 1 wherein R_{2a} is selected from the group consisting of -cycloalkyl(R_7)(R_{11}), -heterocyclyl(R_8)(R_{12}), -phenyl(R_8)(R_{12}), -naphthalenyl(R_8)(R_{12}), and -heteroaryl(R_8)(R_{11}).

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30. The targeting ligand claim 1 wherein R_{2a} is selected from the group consisting of -tetrahydropyrimidinyl(R_8)(R_{12}), -1,3-benzodioxolyl(R_8)(R_{12}),

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-dihydrobenzofuranyl(R_8)(R_{12}), -tetrahydroquinolinyl(R_8)(R_{12}), -phenyl(R_8)(R_{12}), -naphthalenyl(R_8)(R_{12}), -pyridinyl(R_8)(R_{12}), -pyrimidinyl(R_8)(R_{12}), and -quinolinyl(R_8)(R_{12}).
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- 5 31. The targeting ligand of claim 1 wherein R₁₁ is selected from the group consisting of $-C_{1-8}$ alkyl(R_{14}), $-O-C_{1-8}$ alkyl(R_{14}), $-NH-C_{1-8}$ alkyl(R_{14}), $-S-C_{1-8}$ alkyl(R_{14}), $-C(=O)C_{1-8}$ alkyl(R_{14}), $-O-C(=O)C_{1-8}$ alkyl(R_{14}), $-NH-C(=O)C_{1-8}alkyl(R_{14}), -C(=O)OC_{1-8}alkyl(R_{14}), -C(=O)NHC_{1-8}alkyl(R_{14}),$ $-O-C(=O)OC_{1-8}alkyl(R_{14}), -O-C(=O)NHC_{1-8}alkyl(R_{14}),$ 10 $-O-C(=O)C_{1-8}alkylC(=O)(R_{14}),$ $-NH-C(=O)C_{1-8}alkylC(=O)(R_{14}), -C(=O)OC_{1-8}alkylC(=O)(R_{14}),$ $-O-C(=O)OC_{1-8}alkylC(=O)(R_{14}), -NH-C(=O)OC_{1-8}alkylC(=O)(R_{14}),$ $-C(=O)NHC_{1-8}alkylC(=O)(R_{14}), -O-C(=O)NHC_{1-8}alkylC(=O)(R_{14}),$ -NH-C(=O)NHC₁₋₈alkylC(=O)(R_{14}), 15 -SCH₂CH₂O(CH₂CH₂O)_rCH₂CH₂(R₁₄), -NHCH₂CH₂O(CH₂CH₂O)_rCH₂C(=O)(R₁₄),-SO₂NHCH₂CH₂O(CH₂CH₂O)_rCH₂CH₂(R₁₄), $-C(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),$ $-OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),$ 20 $-OC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),$ -NHC(=O)NHCH₂CH₂O(CH₂CH₂O)_rCH₂C(=O)(R₁₄),and $-SO_2NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14})$.
- 32. The targeting ligand of claim 1 wherein R₁₁ is selected from the group

 consisting of -C₁₋₈alkyl(R₁₄), -O-C₁₋₈alkyl(R₁₄), -NH-C₁₋₈alkyl(R₁₄),

 -S-C₁₋₈alkyl(R₁₄), -C(=O)C₁₋₈alkyl(R₁₄), -O-C(=O)C₁₋₈alkyl(R₁₄),

 -NH-C(=O)C₁₋₈alkyl(R₁₄), -C(=O)OC₁₋₈alkyl(R₁₄), -C(=O)NHC₁₋₈alkyl(R₁₄),

 -O-C(=O)OC₁₋₈alkyl(R₁₄), -O-C(=O)NHC₁₋₈alkyl(R₁₄),

 -O-C(=O)C₁₋₈alkylC(=O)(R₁₄), -NH-C(=O)C₁₋₈alkylC(=O)(R₁₄),

 -C(=O)OC₁₋₈alkylC(=O)(R₁₄), -O-C(=O)OC₁₋₈alkylC(=O)(R₁₄),

 -NH-C(=O)OC₁₋₈alkylC(=O)(R₁₄), -C(=O)NHC₁₋₈alkylC(=O)(R₁₄),

 -O-C(=O)NHC₁₋₈alkylC(=O)(R₁₄), and -NH-C(=O)NHC₁₋₈alkylC(=O)(R₁₄).

```
33.
                           The targeting ligand of claim 1 wherein R<sub>12</sub> is selected from the group
                           consisting of -C_{1-6}alkyl(R_{14}), -O-C_{1-6}alkyl(R_{14}),
                          -NH-C_{1-4}alkyl(R_{14}), -S-C_{1-6}alkyl(R_{14}), -CH_2O-C_{1-6}alkyl(R_{14}),
 5
                           -CH_2NH-C_{1-6}alkyl(R_{14}), -CH_2S-C_{1-6}alkyl(R_{14}), -C(=O)C_{1-6}alkyl(R_{14}),
                          -O-C(=O)C_{1-6}alkyl(R_{14}), -NH-C(=O)C_{1-8}alkyl(R_{14}),
                           -CH_2O-C(=O)C_{1-8}alkyl(R_{14}), -CH_2NH-C(=O)C_{1-6}alkyl(R_{14}),
                           -C(=O)OC_{1-6}alkyl(R_{14}), -C(=O)NHC_{1-6}alkyl(R_{14}),
                          -O-C(=O)OC_{1-6}alkyl(R_{14}), -O-C(=O)NHC_{1-6}alkyl(R_{14}),
10
                          -NH-C(=O)OC_{1-6}alkyl(R_{14}), -NH-C(=O)NHC_{1-6}alkyl(R_{14}),
                           -NH-C(=O)C_{1-6}alkylC(=O)(R_{14}), -CH_2O-C(=O)C_{1-8}alkylC(=O)(R_{14}),
                           -NH-C(=O)NHC_{1-8}alkylC(=O)(R_{14}), -CH_2O-C(=O)NHC_{1-8}alkylC(=O)(R_{14}),
                          -CH_2NH-C(=O)NHC_{1-8}alkylC(=O)(R_{14}),
                          -OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
15
                          -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                          -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                           -OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
                           -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>14</sub>),
                          -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
20
                          -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                           -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                           -NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                           -SO_2CH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                           -SO<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
25
                          -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                           -CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                           -CH<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                           -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>14</sub>),
                           -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>14</sub>),
30
                           -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
                           -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
                          -NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
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 $-CH_2OC(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),$

 $-CH_2NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),$

 $-CH_2NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14})$, and

 $-CH_2NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}).$

5

34. The targeting ligand of claim 1 wherein q is 1, 2 or 3.

10

The targeting ligand claim 1 wherein Z is selected from the group consisting of hydroxy, -NH₂, -NH-C₁₋₈alkyl, -N(C₁₋₈alkyl)₂, -O-C₁₋₈alkyl, -O-C₁₋₈alkyl-OH, -O-C₁₋₈alkylC₁₋₄alkoxy, -O-C₁₋₈alkylcarbonylC₁₋₄alkyl, -O-C₁₋₈alkyl-CO₂H, -O-C₁₋₈alkyl-C(O)O-C₁₋₆alkyl, C₁₋₈alkyl-OC(O)-C₁₋₆alkyl, -O-C₁₋₈alkyl-NH₂, -O-C₁₋₈alkyl-NH-C₁₋₈alkyl, -O-C₁₋₈alkyl-N(C₁₋₈alkyl)₂, -O-C₁₋₈alkylamide, C₁₋₈alkyl—C(O)-NH-C₁₋₈alkyl, -O-C₁₋₈alkyl-C(O)-N(C₁₋₈alkyl)₂ and -NHC(O)C₁₋₈alkyl.

- 36. The targeting ligand of claim 1 wherein the targeting ligand is conjugated to an radioactive element.
- The targeting ligand of claim 1 wherein the targeting ligand is conjugated to an imagining agent.
 - 38. The targeting ligand of claim 37 wherein the imagining agent is selected from the group consisting of ⁹⁹Tc, ¹²⁵I, ¹⁸F, ¹¹C, and ⁶⁴Cu.
- 25 39. A targeting ligand of Formula (I):

Formula (I)

wherein

W is selected from the group consisting of $-C_{0-4}$ alkyl(R_1) and $-C_{0-4}$ alkyl-phenyl(R_1 , R_8);

 R_1 is -NH(R_6);

- R_{2a} is selected from the group consisting of -tetrahydropyrimidinyl(R_8)(R_{12}),
 - -1,3-benzodioxolyl(R_8)(R_{12}), -dihydrobenzofuranyl(R_8)(R_{12}),
 - -tetrahydroquinolinyl(R_8)(R_{12}), -phenyl(R_8)(R_{12}), -naphthalenyl(R_8)(R_{12}),
 - -pyridinyl(R_8)(R_{12}), -pyrimidinyl(R_8)(R_{12}), and -quinolinyl(R_8)(R_{12}).

10

25

- R_6 is selected from the group consisting of -dihydroimidazolyl(R_8), -tetrahydropyridinyl(R_8), -tetrahydropyrimidinyl(R_8) and -pyridinyl(R_8);
- R₈ is one to four substituents independently selected from the group consisting of hydrogen and -C₁₋₄alkyl(R₉) when attached to a nitrogen atom; and, wherein R₈ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₄alkyl(R₉), -C₁₋₄alkoxy(R₉), -O-aryl(R₁₀) and hydroxy when attached to a carbon atom;
- R₉ is selected from the group consisting of hydrogen, -C₁₋₄alkoxy, -NH₂, -NH-C₁₋₄alkyl, -N(C₁₋₄alkyl)₂, (halo)₁₋₃ and hydroxy;
 - R₁₀ is independently selected from the group consisting of hydrogen, -C₁₋₄alkyl, -C₁₋₄alkoxy, -C(=O)H, -C(=O)-C₁₋₄alkyl, -CO₂H, -CO₂-C₁₋₄alkyl, -NH₂, -NH-C₁₋₄alkyl, -N(C₁₋₄alkyl)₂, halo, hydroxy, nitro and oxo when attached to a carbon atom;

q is 1, 2 or 3;

30 R_{12} is selected from the group consisting of $-C_{1-6}$ alkyl(R_{14}), $-O-C_{1-6}$ alkyl(R_{14}), $-NH-C_{1-4}$ alkyl(R_{14}), $-S-C_{1-6}$ alkyl(R_{14}), $-CH_2O-C_{1-6}$ alkyl(R_{14}), $-CH_2NH-C_{1-6}$ alkyl(R_{14}), $-CH_2S-C_{1-6}$ alkyl(R_{14}), $-C(=O)C_{1-6}$ alkyl(R_{14}),

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-O-C(=O)C_{1-6}alkyl(R_{14}), -NH-C(=O)C_{1-8}alkyl(R_{14}),
                           -CH_2O-C(=O)C_{1-8}alkyl(R_{14}), -CH_2NH-C(=O)C_{1-6}alkyl(R_{14}),
                           -C(=O)OC_{1-6}alkyl(R_{14}), -C(=O)NHC_{1-6}alkyl(R_{14}),
                           -O-C(=O)OC_{1-6}alkyl(R_{14}), -O-C(=O)NHC_{1-6}alkyl(R_{14}),
 5
                           -NH-C(=O)OC_{1-6}alkyl(R_{14}), -NH-C(=O)NHC_{1-6}alkyl(R_{14}),
                           -NH-C(=O)C<sub>1-6</sub>alkylC(=O)(R_{14}), -CH<sub>2</sub>O-C(=O)C<sub>1-8</sub>alkylC(=O)(R_{14}),
                           -NH-C(=O)NHC_{1-8}alkylC(=O)(R_{14}), -CH_2O-C(=O)NHC_{1-8}alkylC(=O)(R_{14}),
                           -CH_2NH-C(=O)NHC_{1-8}alkylC(=O)(R_{14}),
                           -OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
10
                           -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                           -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                           -OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>14</sub>),
                           -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R_{14}),
                           -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
15
                           -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                           -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                           -NHC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R_{14}),
                           -SO_2CH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                           -SO<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
20
                           -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                           -CH_2NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{14}),
                           -CH<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>14</sub>),
                           -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>14</sub>),
                           -OC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
25
                           -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
                           -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
                           -NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
                           -CH_2OC(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
                           -CH_2NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}),
30
                           -CH_2NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14}), and
                           -CH_2NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{14});
```

 R_{14} when R_{11} and R_{12} terminates with a C(=O)is selected from the group consisting of hydrogen, OH, , -OC₁₋₄alkyl and NH₂; otherwise R_{14} is selected from the group consisting of -OH, -SH, COOH, and -COOC₁₋₄alkyl;

Z is slected from the group consisting hydroxy, -NH₂, -NH-C₁₋₈alkyl, -N(C₁₋₈alkyl)₂, O-C₁₋₈alkyl-OH, -O-C₁₋₈alkylC₁₋₈alkoxy, -O-C₁₋₈alkylcarbonylC₁₋₈alkyl, -O-C₁₋₈alkyl-CO₂H, -O-C₁₋₈alkyl-C(O)O-C₁₋₈alkyl, -O-C₁₋₈alkyl-O-C(O)C₁₋₈alkyl, -O-C₁₋₈alkyl-NH₂, -O-C₁₋₈alkyl-NH-C₁₋₈alkyl, -O-C₁₋₈alkyl-N(C₁₋₈alkyl)₂, -O-C₁₋₈alkylamide, -O-C₁₋₈alkyl-C(O)-NH-C₁₋₈alkyl, -O-C₁₋₈alkyl-C(O)-N(C₁₋₈alkyl)₂ and -NHC(O)C₁₋₈alkyl;

and pharmaceutically acceptable salts, racemic mixtures and enantiomers thereof.

40. A targeting conjugate having a formula selected from the group consisting of Formula (I):

Formula (I)

and Formula (II):

$$(CH_2)_q$$
 R_2

Formula (II)

20 wherein

30

```
W is selected from the group consisting of -C_{0-6}alkyl(R_1), -C_{1-6}alkyl(R_{1a}), -C_{0-6}alkyl-aryl(R_1,R_8), -C_{0-6}alkyl-heterocyclyl(R_1,R_8), -C_{0-6}alkoxy(R_1), -C_{0-6}alkoxy-aryl(R_1,R_8), and -C_{0-6}alkoxy-heterocyclyl(R_1,R_8);
```

R₁ is selected from the group consisting of hydrogen, $-N(R_4)_2$, $-N(R_4)(R_5)$, $-N(R_4)(R_6)$, -heterocyclyl(R₈) and -heteroaryl(R₈);

R_{1a} is selected from the group consisting of
$$-C(R_4)(=N-R_4)$$
, $-C(=N-R_4)-N(R_4)_2$, $-C(=N-R_4)-N(R_4)(R_6)$, $-C(=N-R_4)-N(R_4)-C(=O)-R_4$, $-C(=N-R_4)-N(R_4)-C(=O)-N(R_4)_2$, $-C(=N-R_4)-N(R_4)-CO_2-R_4$, $-C(=N-R_4)-N(R_4)-SO_2-C_{1.8}$ alkyl(R₇) and $-C(=N-R_4)-N(R_4)-SO_2-N(R_4)_2$;

 R_4 is selected from the group consisting of hydrogen and $-C_{1-8}$ alkyl(R_7);

- 15 R₅ is selected from the group consisting of -C(=O)-R₄, -C(=O)-N(R₄)₂,
 -C(=O)-cycloalkyl(R₈), -C(=O)-heterocyclyl(R₈), -C(=O)-aryl(R₈),
 -C(=O)-heteroaryl(R₈), -C(=O)-N(R₄)-cycloalkyl(R₈), -C(=O)-N(R₄)-aryl(R₈),
 -CO₂-R₄, -CO₂-cycloalkyl(R₈), -CO₂-aryl(R₈), -C(R₄)(=N-R₄), -C(=N-R₄)-N(R₄)₂,
 -C(=N-R₄)-N(R₄)(R₆), -C(=N-R₄)-N(R₄)-C(=O)-R₄,
 -C(=N-R₄)-N(R₄)-C(=O)-N(R₄)₂, -C(=N-R₄)-N(R₄)-CO₂-R₄,
 -C(=N-R₄)-N(R₄)-SO₂-C₁₋₈alkyl(R₇), -C(=N-R₄)-N(R₄)-SO₂-N(R₄)₂,
 -N(R₄)-C(=N-R₄)-N(R₄)-C(=N-R₄)-N(R₄)₂, -N(R₄)-C(=N-R₄)-N(R₄)-C(=O)-N(R₄)₂,
 -N(R₄)-C(=N-R₄)-N(R₄)-C(=O)-R₄, -N(R₄)-C(=N-R₄)-N(R₄)-C(=O)-N(R₄)₂,
 -N(R₄)-C(=N-R₄)-N(R₄)-CO₂-R₄, -N(R₄)-C(=N-R₄)-N(R₄)-SO₂-C₁₋₈alkyl(R₇),
 -N(R₄)-C(=N-R₄)-N(R₄)-SO₂-N(R₄)₂, -SO₂-C₁₋₈alkyl(R₇), -SO₂-N(R₄)₂,
 -SO₂-cycloalkyl(R₈) and -SO₂-aryl(R₈);
 - R_6 is selected from the group consisting of -cycloalkyl(R_8), -heterocyclyl(R_8), -aryl(R_8) and -heteroaryl(R_8);
 - R₇ is one to two substituents independently selected from the group consisting of hydrogen, -C₁₋₈alkoxy(R₉), -NH₂, -NH-C₁₋₈alkyl(R₉), -N(C₁₋₈alkyl(R₉))₂, -C(=O)H,

```
-C(=O)-C_{1-8}alkyl(R_9), -C(=O)-NH_2, -C(=O)-NH-C_{1-8}alkyl(R_9),
                -C(=O)-N(C_{1-8}alkyl(R_9))_2, -C(=O)-NH-aryl(R_{10}), -C(=O)-cycloalkyl(R_{10}),
                -C(=O)-heterocyclyl(R_{10}), -C(=O)-aryl(R_{10}), -C(=O)-heteroaryl(R_{10}), -CO<sub>2</sub>H,
                -CO_2-C_{1-8}alkyl(R<sub>9</sub>), -CO_2-aryl(R<sub>10</sub>), -C(=NH)-NH_2, -SH, -S-C_{1-8}alkyl(R<sub>9</sub>),
 5
                -S-C_{1-8}alkyl-S-C_{1-8}alkyl(R_9), -S-C_{1-8}alkyl-C_{1-8}alkoxy(R_9),
                -S-C_{1-8}alkyl-NH-C_{1-8}alkyl(R_9), -SO_2-C_{1-8}alkyl(R_9), -SO_2-NH_2,
                -SO_2-NH-C_{1-8}alkyl(R_9), -SO_2-N(C_{1-8}alkyl(R_9))_2, -SO_2-aryl(R_{10}), cyano, (halo)<sub>1-3</sub>,
                hydroxy, nitro, oxo, -cycloalkyl(R_{10}), -heterocyclyl(R_{10}), -aryl(R_{10}) and
                -heteroaryl(R_{10});
10
           R<sub>8</sub> is one to four substituents independently selected from the group consisting of
                hydrogen, -C_{1-8}alkyl(R_9), -C(=O)H, -C(=O)-C_{1-8}alkyl(R_9), -C(=O)-NH_2,
                -C(=O)-NH-C_{1-8}alkyl(R_9), -C(=O)-N(C_{1-8}alkyl(R_9))_2, -C(=O)-NH-aryl(R_{10}),
                -C(=O)-cycloalkyl(R_{10}), -C(=O)-heterocyclyl(R_{10}), -C(=O)-aryl(R_{10}),
15
                -C(=O)-heteroaryl(R_{10}), -CO_2H, -CO_2-C_{1-8}alkyl(R_9), -CO_2-aryl(R_{10}), -C(=NH)-NH_2,
                -SO_2-C_{1-8}alkyl(R_9), -SO_2-NH_2, -SO_2-NH-C_{1-8}alkyl(R_9), -SO_2-N(C_{1-8}alkyl(R_9))_2,
                -SO_2-aryl(R_{10}), -cycloalkyl(R_{10}) and -aryl(R_{10}) when attached to a nitrogen atom;
                and, wherein R<sub>8</sub> is one to four substituents independently selected from the group
                consisting of hydrogen, -C<sub>1-8</sub>alkyl(R<sub>9</sub>), -C<sub>1-8</sub>alkoxy(R<sub>9</sub>), -O-cycloalkyl(R<sub>10</sub>),
20
                -O-aryl(R_{10}), -C(=O)H, -C(=O)-C_{1-8}alkyl(R_{9}), -NHC(=O)-C_{1-8}alkyl(R_{9}),
                -C(=O)-NH_2, -C(=O)-NH-C_{1-8}alkyl(R_9), -C(=O)-N(C_{1-8}alkyl(R_9))_2,
                -C(=O)-NH-aryl(R_{10}), -NHC(=O)-NH_2, -NHC(=O)-NH-C_{1-8}alkyl(R_9),
                -NHC(=O)-N(C_{1-8}alkyl(R_9))_2, -NHC(=O)-NH-aryl(R_{10}),
                -NHC(=O)-O-C_{1-8}alkyl(R_9), -NHC(=O)-O-aryl(R_{10}), -C(=O)-cycloalkyl(R_{10}),
25
                -C(=O)-heterocyclyl(R_{10}), -C(=O)-aryl(R_{10}), -C(=O)-heteroaryl(R_{10}),
                -NHC(=O)-cycloalkyl(R_{10}), -NHC(=O)-heterocyclyl(R_{10}), -NHC(=O)-aryl(R_{10}),
                -NHC(=O)-heteroaryl(R_{10}), -CO<sub>2</sub>H, -CO<sub>2</sub>-C_{1-8}alkyl(R_{9}), -CO<sub>2</sub>-aryl(R_{10}),
                -C(=NH)-NH_2, -SO_2-C_{1-8}alkyl(R_9), -SO_2-NH_2, -SO_2-NH-C_{1-8}alkyl(R_9),
                -SO_2-N(C_{1-8}alkyl(R_9))_2, -SO_2-aryl(R_{10}), -NHSO_2-C_{1-8}alkyl(R_9), -NHSO_2-aryl(R_{10}),
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30

halo, hydroxy, nitro, oxo, -cycloalkyl (R_{10}) , -heterocyclyl (R_{10}) , -aryl (R_{10}) , and

-SH, $-S-C_{1-8}$ alkyl(R_9), $-S-C_{1-8}$ alkyl- $-S-C_{1-8}$

 $-S-C_{1-8}$ alkyl-NH- C_{1-8} alkyl(R_9), $-NH_2$, $-NH-C_{1-8}$ alkyl(R_9), $-N(C_{1-8}$ alkyl(R_9))₂, cyano,

-heteroaryl(R_{10}) when attached to a carbon atom;

```
R<sub>9</sub> is selected from the group consisting of hydrogen, -C<sub>1-8</sub>alkoxy, -NH<sub>2</sub>, -NH-C<sub>1-8</sub>alkyl, -N(C<sub>1-8</sub>alkyl)<sub>2</sub>, -C(=O)H, -C(=O)-NH<sub>2</sub>, -C(=O)-NH-C<sub>1-8</sub>alkyl, -C(=O)-N(C<sub>1-8</sub>alkyl)<sub>2</sub>, -CO<sub>2</sub>H, -CO<sub>2</sub>-C<sub>1-8</sub>alkyl, -SO<sub>2</sub>-C<sub>1-8</sub>alkyl, -SO<sub>2</sub>-NH<sub>2</sub>, -SO<sub>2</sub>-NH-C<sub>1-8</sub>alkyl, -SO<sub>2</sub>-N(C<sub>1-8</sub>alkyl)<sub>2</sub>, cyano, (halo)<sub>1-3</sub>, hydroxy, nitro and oxo;
```

R₁₀ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₈alkyl, -C(=O)H, -C(=O)-C₁₋₈alkyl, -C(=O)-NH₂,

-C(=O)-NH-C₁₋₈alkyl, -C(=O)-N(C₁₋₈alkyl)₂, -CO₂H, -CO₂- C₁₋₄alkyl,

-SO₂-C₁₋₈alkyl, -SO₂-NH₂, -SO₂-NH-C₁₋₈alkyl and -SO₂-N(C₁₋₈alkyl)₂ when attached to a nitrogen atom; and, wherein R₁₀ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₈alkyl,

-C₁₋₈alkoxy, -C(=O)H, -C(=O)-C₁₋₈alkyl, -C(=O)-NH₂, -C(=O)-NH-C₁₋₈alkyl,

-C(=O)-N(C₁₋₈alkyl)₂, -CO₂H, -CO₂- C₁₋₄alkyl, -SO₂-C₁₋₈alkyl, -SO₂-NH₂,

-SO₂-NH-C₁₋₈alkyl, -SO₂-N(C₁₋₈alkyl)₂, -NH₂, -NH-C₁₋₈alkyl, -N(C₁₋₈alkyl)₂, cyano, halo, hydroxy, nitro and oxo when attached to a carbon atom;

q is 0, 1, 2, or 3;

20

5

 R_{2a} is selected from the group consisting of $-C_{1-8}alkyl(R_7)(R_{11})$, $-C_{2-8}alkenyl(R_7)(R_{11})$, $-C_{2-8}alkynyl(R_7)(R_{11})$, -cycloalkyl(R_7)(R_{11}), -heterocyclyl(R_8)(R_{12}), -aryl(R_8)(R_{12}) and -heteroaryl(R_8)(R_{12});

25 R₁₁ is selected from the group consisting of -C₁₋₈alkyl(R₁₃),
-O-C₁₋₈alkyl(R₁₃), -NH-C₁₋₈alkyl(R₁₃), -S-C₁₋₈alkyl(R₁₃), -C(=O)C₁₋₈alkyl(R₁₃),
-O-C(=O)C₁₋₈alkyl(R₁₃), -NH-C(=O)C₁₋₈alkyl(R₁₃), -C(=O)OC₁₋₈alkyl(R₁₃),
-C(=O)NHC₁₋₈alkyl(R₁₃), -O-C(=O)OC₁₋₈alkyl(R₁₃),
-O-C(=O)NHC₁₋₈alkyl(R₁₃), -NH-C(=O)OC₁₋₈alkyl(R₁₃),
-NH-C(=O)NHC₁₋₈alkyl(R₁₃), -C(=O)C₁₋₈alkylC(=O)(R₁₃),
-O-C(=O)C₁₋₈alkylC(=O)(R₁₃), -NH-C(=O)C₁₋₈alkylC(=O)(R₁₃),

 $-C(=O)OC_{1-8}alkylC(=O)(R_{13}), -O-C(=O)OC_{1-8}alkylC(=O)(R_{13}),$

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-NH-C(=O)OC_{1-8}alkylC(=O)(R_{13}), -C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
                     -O-C(=O)NHC_{1-8}alkylC(=O)(R_{13}), -NH-C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
                     -OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                     -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
  5
                     -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                     -OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                     -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                     -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                     -OC(=O)CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
10
                     -OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                     -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                     -NH(C=O)CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R_{13}),
                     -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                     -NHC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
15
                     -SO_2CH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                     -SO<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                     -C(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                     -OC(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                     -OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
20
                     -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                     -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                     -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                     -NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                     -SO_2CH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}), and
25
                     -SO_2NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13});
               R_{12} is selected from the group consisting of -C_{1-8}alkyl(R_{13}), -O-C_{1-8}alkyl(R_{13}),
                     -NH-C_{1-8}alkyl(R_{13}), -S-C_{1-8}alkyl(R_{13}), -CH_2O-C_{1-8}alkyl(R_{13}),
                     -CH_2NH-C_{1-8}alkyl(R_{13}), -CH_2S-C_{1-8}alkyl(R_{13}), -C(=O)C_{1-8}alkyl(R_{13}),
30
                     -O-C(=O)C_{1-8}alkyl(R_{13}), -NH-C(=O)C_{1-8}alkyl(R_{13}),
                     -CH_2O-C(=O)C_{1-8}alkyl(R_{13}), -CH_2NH-C(=O)C_{1-8}alkyl(R_{13}),
                           -C(=O)OC_{1-8}alkyl(R_{13}), -C(=O)NHC_{1-8}alkyl(R_{13}),
```

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-O-C(=O)OC_{1-8}alkyl(R_{13}), -O-C(=O)NHC_{1-8}alkyl(R_{13}),
                      -NH-C(=O)OC_{1-8}alkyl(R_{13}), -NH-C(=O)NHC_{1-8}alkyl(R_{13}),
                      -CH_2O-C(=O)OC_{1-8}alkyl(R_{13}), -CH_2O-C(=O)NHC_{1-8}alkyl(R_{13}),
                      -CH_2NH-C(=O)OC_{1-8}alkyl(R_{13}), -CH_2NH-C(=O)NHC_{1-8}alkyl(R_{13}),
 5
                      -C(=O)C_{1-8}alkylC(=O)(R_{13}), -O-C(=O)C_{1-8}alkylC(=O)(R_{13}),
                      -NH-C(=O)C_{1-8}alkylC(=O)(R_{13}), -CH_2O-C(=O)C_{1-8}alkylC(=O)(R_{13}),
                      -CH_2NH-C(=O)C_{1-8}alkylC(=O)(R_{13}), -C(=O)OC_{1-8}alkylC(=O)(R_{13}),
                      -O-C(=O)OC_{1-8}alkylC(=O)(R_{13}), -NH-C(=O)OC_{1-8}alkylC(=O)(R_{13}),
                      -CH_2O-C(=O)OC_{1-8}alkylC(=O)(R_{13}), -CH_2NH-C(=O)OC_{1-8}alkylC(=O)(R_{13}),
10
                      -C(=O)NHC_{1-8}alkylC(=O)(R_{13}), -O-C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
                      -NH-C(=O)NHC_{1.8}alkylC(=O)(R_{13}), -CH_2O-C(=O)NHC_{1.8}alkylC(=O)(R_{13}),
                      -CH_2NH-C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
                      -OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                      -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
15
                      -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                      -OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                      -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                      -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                      -OC(=O)CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
20
                      -OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                      -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                      -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                      -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                      -NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
25
                      -SO_2CH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                      -SO<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                      -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                      -CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                      -CH<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
30
                      -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                      -CH_2NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                      -CH_2SCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
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 $-CH_2OC(=O)CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),$

-CH₂OC(=O)OCH₂CH₂O(CH₂CH₂O)_rCH₂CH₂(R₁₃),

-CH₂OC(=O)NHCH₂CH₂O(CH₂CH₂O)_rCH₂CH₂(R₁₃),

-CH₂NH(C=O)CH₂O(CH₂CH₂O)_rCH₂CH₂(R₁₃),

5 $-CH_2NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),$

 $-CH_2NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),$

 $-C(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),$

 $-OC(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),$

 $-OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),$

10 $-OC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),$

 $-NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),$

 $-NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),$

-NHC(=O)NHCH₂CH₂O(CH₂CH₂O)_rCH₂C(=O)(R₁₃),

 $-SO_2CH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),$

-SO₂NHCH₂CH₂O(CH₂CH₂O)_rCH₂C(=O)(R₁₃),

 $-CH_2OC(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),$

 $-CH_2OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),$

 $-CH_2OC(=O)NHCH_2CH_2O(CH_2CH_2O)_tCH_2C(=O)(R_{13}),$

 $-CH_2NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),$

 $-CH_2NHC(=O)OCH_2CH_2O(CH_2CH_2O)_tCH_2C(=O)(R_{13})$, and

 $-CH_2NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13});$

wherein when R_{11} or R_{12} terminates with a -C(=O)-, R_{13} is selected from

$$-\underset{\mathsf{H}}{\overset{\mathsf{N}}{\longrightarrow}} \overset{\mathsf{O}}{\longrightarrow} \overset{\mathsf{O}}{\overset{\mathsf{D}}{\longrightarrow}} \overset{\mathsf{O}}{\overset{\mathsf{D}}{\longrightarrow}} \overset{\mathsf{O}}{\overset{\mathsf{D}}{\longrightarrow}} \overset{\mathsf{O}}{\overset{\mathsf{D}}{\longrightarrow}} \overset{\mathsf{O}}{\overset{\mathsf{D}}{\longrightarrow}} \overset{\mathsf{O}}{\overset{\mathsf{D}}{\longrightarrow}} \overset{\mathsf{O}}{\overset{\mathsf{D}}{\longrightarrow}} \overset{\mathsf{O}}{\overset{\mathsf{D}}{\longrightarrow}} \overset{\mathsf{D}}{\overset{\mathsf{D}}{\longrightarrow}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}{\longrightarrow}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}{\longrightarrow} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}{\longrightarrow}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}} \overset{\mathsf{D}}} \overset{\mathsf{D}} \overset{\mathsf{D}}} \overset{\mathsf{D}} \overset{\mathsf{D}}{\overset{\mathsf{D}}} \overset{\mathsf{D}}} \overset{\mathsf{D}} \overset$$

and when R_{11} or R_{12} does not terminate with a -C(=O)-, R_{13} is selected from the group consisting of

5

H O O P O HO O $\{-0, 0, 0\}$ § -N H O P O HO Q

5

{-s-s(), N, O(O), N, O(P, O), O(O), $\{-N \atop H$

5

10

 $\begin{cases} O & O \\ O$

r is an integer from 0 to 8;

Q and Q¹ of substituents R₁₂ and R₁₃ are the same within a given compound and are selected from the group consisting of

15

25

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the C₁₁ saturated chain of lauric acid,
the C₁₃ saturated chain of myristoic acid,
the C₁₅ saturated chain of palmitoic acid,
the C₁₇ saturated chain of stearoic acid,
the C₁₇ mono-unsaturated chain of oleoic acid, and
the C₁₇ di-unsaturated chain of linoleic acid;

Z is selected from the group consisting of hydroxy, -NH₂, -NH-C₁₋₈alkyl,
-N(C₁₋₈alkyl)₂, -O-C₁₋₈alkyl, -O-C₁₋₈alkyl-OH, -O-C₁₋₈alkylC₁₋₈alkoxy,
-O-C₁₋₈alkylcarbonylC₁₋₈alkyl, -O-C₁₋₈alkyl-CO₂H, -O-C₁₋₈alkyl-C(O)O-C₁₋₈alkyl, -O-C₁₋₈alkyl-NH₂, -O-C₁₋₈alkyl-NH-C₁₋₈alkyl,
-O-C₁₋₈alkyl-N(C₁₋₈alkyl)₂, -O-C₁₋₈alkylamide, -O-C₁₋₈alkyl-C(O)-NH-C₁₋₈alkyl,
-O-C₁₋₈alkyl-C(O)-N(C₁₋₈alkyl)₂, and -NHC(O)C₁₋₈alkyl;

and pharmaceutically acceptable salts, racemic mixtures and enantiomers thereof.

- 41. The targeting conjugate of claim 40 wherein W is selected from the group consisting of -C₀₋₄alkyl(R₁) and -C₀₋₄alkyl-aryl(R₁,R₈).
- 20 42. The targeting conjugate of claim 40 wherein W is $-C_{0-4}$ alkyl (R_1) or $-C_{0-4}$ alkyl-phenyl (R_1,R_8) .
 - 43. The targeting conjugate of claim 40 wherein R_1 is selected from the group consisting of $-N(R_4)(R_6)$, -heterocyclyl(R_8) and -heteroaryl(R_8).

44. The targeting conjugate of claim 40 wherein R₁ is selected from the group consisting of -N(R₄)(R₆), -dihydro-1*H*-pyrrolo[2,3-*b*]pyridinyl(R₈), -tetrahydropyrimidinyl(R₈), -tetrahydro-1,8-naphthyridinyl(R₈), -tetrahydro-1*H*-azepino[2,3-*b*]pyridinyl(R₈) and -pyridinyl(R₈).

45. The targeting conjugate of claim 40 wherein R_1 is selected from the group consisting of $-N(R_4)(R_6)$, -tetrahydropyrimidinyl(R_8) and

-tetrahydro-1,8-naphthyridinyl(R₈).

- 46. The targeting conjugate of claim 40 wherein R_{1a} is selected from the group consisting of -C(R₄)(=N-R₄), -C(=N-R₄)-N(R₄)₂, -C(=N-R₄)-N(R₄)(R₆),
 5 -C(=N-R₄)-N(R₄)-C(=O)-R₄, -C(=N-R₄)-N(R₄)-C(=O)-N(R₄)₂, -C(=N-R₄)-N(R₄)-CO₂-R₄, -C(=N-R₄)-N(R₄)-SO₂-C₁₋₄alkyl(R₇) and -C(=N-R₄)-N(R₄)-SO₂-N(R₄)₂.
- The targeting conjugate of claim 40 wherein R₄ is selected from the group consisting of hydrogen and -C₁₋₄alkyl(R₇).
 - 48. The targeting conjugate of claim 40 wherein R₄ is hydrogen.
- 49. The targeting conjugate of claim 40 wherein R₅ is selected from the group 15 consisting of $-C(=O)-R_4$, $-C(=O)-N(R_4)_2$, $-C(=O)-cycloalkyl(R_8)$, -C(=O)-heterocyclyl(R_8), -C(=O)-aryl(R_8), -C(=O)-heteroaryl(R_8), $-C(=O)-N(R_4)$ -cycloalkyl(R₈), $-C(=O)-N(R_4)$ -aryl(R₈), $-CO_2-R_4$, $-CO_2$ -cycloalkyl(R₈), $-CO_2$ -aryl(R₈), $-C(R_4)(=N-R_4)$, $-C(=N-R_4)-N(R_4)_2$, $-C(=N-R_4)-N(R_4)(R_6)$, $-C(=N-R_4)-N(R_4)-C(=O)-R_4$, 20 $-C(=N-R_4)-N(R_4)-C(=O)-N(R_4)_2$, $-C(=N-R_4)-N(R_4)-CO_2-R_4$, $-C(=N-R_4)-N(R_4)-SO_2-C_{1-4}alkyl(R_7), -C(=N-R_4)-N(R_4)-SO_2-N(R_4)_2,$ $-N(R_4)-C(R_4)(=N-R_4)$, $-N(R_4)-C(=N-R_4)-N(R_4)$, $-N(R_4)-C(=N-R_4)-N(R_4)$, $-N(R_4)-C(=N-R_4)-N(R_4)-C(=O)-R_4$, $-N(R_4)-C(=N-R_4)-N(R_4)-C(=O)-N(R_4)_2$, $-N(R_4)-C(=N-R_4)-N(R_4)-CO_2-R_4$, $-N(R_4)-C(=N-R_4)-N(R_4)-SO_2-C_{1-4}alkyl(R_7)$, 25 $-N(R_4)-C(=N-R_4)-N(R_4)-SO_2-N(R_4)_2$, $-SO_2-C_{1-4}$ alkyl (R_7) , $-SO_2-N(R_4)_2$, $-SO_2$ -cycloalkyl(R₈) and $-SO_2$ -aryl(R₈).
- 50. The targeting conjugate of claim 40 wherein R₅ is selected from the group consisting of -C(=O)-R₄, -C(=O)-N(R₄)₂, -CO₂-R₄, -C(R₄)(=N-R₄),

 -C(=N-R₄)-N(R₄)₂, -C(=N-R₄)-N(R₄)(R₆), -N(R₄)-C(R₄)(=N-R₄),

 -N(R₄)-C(=N-R₄)-N(R₄)₂, -N(R₄)-C(=N-R₄)-N(R₄)(R₆), -SO₂-C₁₋₄alkyl(R₇) and
 -SO₂-N(R₄)₂.

- 51. The targeting conjugate of claim 40 wherein R_6 is selected from the group consisting of -heterocyclyl(R_8) and -heteroaryl(R_8).
- 5 52. The targeting conjugate of claim 40 wherein R_6 is selected from the group consisting of -dihydroimidazolyl(R_8), -tetrahydropyridinyl(R_8), -tetrahydropyrimidinyl(R_8) and -pyridinyl(R_8).
- 53. The targeting conjugate of claim 40 wherein R₇ is one to two substituents 10 independently selected from the group consisting of hydrogen, -C₁₋₄alkoxy(R₉), $-NH_2$, $-NH-C_{1-4}alkyl(R_9)$, $-N(C_{1-4}alkyl(R_9))_2$, -C(=O)H, $-C(=O)-C_{1-4}alkyl(R_9)$, $-C(=O)-NH_2$, $-C(=O)-NH-C_{1-4}alkyl(R_9)$, $-C(=O)-N(C_{1-4}alkyl(R_9))_2$, $-C(=O)-NH-aryl(R_{10}), -C(=O)-cycloalkyl(R_{10}), -C(=O)-heterocyclyl(R_{10}),$ -C(=O)-aryl(R_{10}), -C(=O)-heteroaryl(R_{10}), $-CO_2H$, $-CO_2-C_{1-4}$ alkyl(R_9), 15 $-CO_2$ -aryl(R₁₀), $-C(=NH)-NH_2$, -SH, $-S-C_{1-4}$ alkyl(R₉), $-S-C_{1-4}$ alkyl $-S-C_{1-4}$ alkyl (R_9) , $-S-C_{1-4}$ alkyl $-C_{1-4}$ alkoxy (R_9) , $-S-C_{1-4}$ alkyl-NH- C_{1-4} alkyl(R_9), $-SO_2-C_{1-4}$ alkyl(R_9), $-SO_2-NH_2$, $-SO_2-NH-C_{1-4}alkyl(R_9)$, $-SO_2-N(C_{1-4}alkyl(R_9))_2$, $-SO_2-aryl(R_{10})$, cyano, $(halo)_{1-3}$, hydroxy, nitro, oxo, -cycloalkyl (R_{10}) , -heterocyclyl (R_{10}) , -aryl (R_{10}) 20 and -heteroaryl(R_{10}).
 - 54. The targeting conjugate of claim 40 wherein R₇ is one to two substituents independently selected from the group consisting of hydrogen, -C₁₋₄alkoxy(R₉), -NH₂, -NH-C₁₋₄alkyl(R₉), -N(C₁₋₄alkyl(R₉))₂, (halo)₁₋₃, hydroxy and oxo.
 - 55. The targeting conjugate of claim 40 wherein R_7 is hydrogen.
- The targeting conjugate of claim 40 wherein R₈ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₄alkyl(R₉), -C(=O)H, -C(=O)-C₁₋₄alkyl(R₉), -C(=O)-NH₂, -C(=O)-NH-C₁₋₄alkyl(R₉), -C(=O)-NH-aryl(R₁₀), -C(=O)-cycloalkyl(R₁₀), -C(=O)-heterocyclyl(R₁₀), -C(=O)-aryl(R₁₀), -C(=O)-heteroaryl(R₁₀), -CO₂H,

-CO₂-C₁₋₄alkyl(R₉), -CO₂-aryl(R₁₀), -C(=NH)-NH₂, -SO₂-C₁₋₄alkyl(R₉),
-SO₂-NH₂, -SO₂-NH-C₁₋₄alkyl(R₉), -SO₂-N(C₁₋₄alkyl(R₉))₂, -SO₂-aryl(R₁₀),
-cycloalkyl(R₁₀) and -aryl(R₁₀) when attached to a nitrogen atom; and, wherein
R₈ is one to four substituents independently selected from the group consisting
of hydrogen, -C₁₋₄alkyl(R₉), -C₁₋₄alkoxy(R₉), -O-cycloalkyl(R₁₀), -O-aryl(R₁₀),
-C(=O)H, -C(=O)-C₁₋₄alkyl(R₉), -C(=O)-NH₂, -C(=O)-NH-C₁₋₄alkyl(R₉),
-C(=O)-N(C₁₋₄alkyl-R₁₁)₂, -C(=O)-NH-aryl(R₁₀), -C(=O)-cycloalkyl(R₁₀),
-C(=O)-heterocyclyl(R₁₀), -C(=O)-aryl(R₁₀), -C(=O)-heteroaryl(R₁₀), -CO₂H,
-CO₂-C₁₋₄alkyl(R₉), -CO₂-aryl(R₁₀), -C(=NH)-NH₂, -SO₂-C₁₋₄alkyl(R₉),
-SO₂-NH₂, -SO₂-NH-C₁₋₄alkyl(R₉), -SO₂-N(C₁₋₄alkyl(R₉))₂, -SO₂-aryl(R₁₀),
-SH, -S-C₁₋₄alkyl(R₉), -S-C₁₋₄alkyl-S-C₁₋₄alkyl(R₉), -S-C₁₋₄alkyl-C₁₋₄alkoxy(R₉),
-S-C₁₋₄alkyl-NH-C₁₋₄alkyl(R₉), -NH₂, -NH-C₁₋₄alkyl(R₉), -N(C₁₋₄alkyl(R₉))₂,
cyano, halo, hydroxy, nitro, oxo, -cycloalkyl(R₁₀), -heterocyclyl(R₁₀), -aryl(R₁₀)
and -heteroaryl(R₁₀) when attached to a carbon atom.

57. The targeting conjugate of claim 40 wherein R₈ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₄alkyl(R₉), -C(=O)H, -C(=O)-NH₂, -C(=O)-NH-C₁₋₄alkyl(R₉), -C(=O)-N(C₁₋₄alkyl(R₉))₂, -CO₂H, -CO₂-C₁₋₄alkyl(R₉) and -SO₂-NH₂ when attached to a nitrogen atom; and, wherein R₈ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₄alkyl(R₉), -C₁₋₄alkoxy(R₉), -O-aryl(R₁₀), -C(=O)H, -C(=O)-NH₂, -C(=O)-NH-C₁₋₄alkyl(R₉), -C(=O)-N(C₁₋₄alkyl(R₉))₂, -CO₂H, -CO₂-C₁₋₄alkyl(R₉), -SO₂-NH₂, -NH₂, -NH-C₁₋₄alkyl(R₉), -N(C₁₋₄alkyl(R₉))₂, cyano, halo, hydroxy, nitro and oxo when attached to a carbon atom.

58. The targeting conjugate of claim 40 wherein R₈ is one to four substituents independently selected from the group consisting of hydrogen and -C₁₋₄alkyl(R₉) when attached to a nitrogen atom; and, wherein R₈ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₄alkyl(R₉), -C₁₋₄alkoxy(R₉), -O-aryl(R₁₀), -NH₂, -NH-C₁₋₄alkyl(R₉), -N(C₁₋₄alkyl(R₉))₂, halo, hydroxy and oxo when attached to a carbon atom.

- 59. The targeting conjugate of claim 40 wherein R₈ is one to four substituents independently selected from the group consisting of hydrogen and -C₁₋₄alkyl(R₉) when attached to a nitrogen atom; and, wherein R₈ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₄alkyl(R₉), -C₁₋₄alkoxy(R₉), -O-aryl(R₁₀) and hydroxy when attached to a carbon atom.
- 60. The targeting conjugate of claim 40 wherein R₉ is selected from the group consisting of hydrogen, -C₁₋₄alkoxy, -NH₂, -NH-C₁₋₄alkyl, -N(C₁₋₄alkyl)₂, -C(=O)H, -C(=O)-NH₂, -C(=O)-NH-C₁₋₄alkyl, -C(=O)-N(C₁₋₄alkyl)₂, -CO₂H, -CO₂-C₁₋₄alkyl, -SO₂-C₁₋₄alkyl, -SO₂-NH₂, -SO₂-NH-C₁₋₄alkyl, -SO₂-N(C₁₋₄alkyl)₂, cyano, (halo)₁₋₃, hydroxy, nitro and oxo.
- 15 The targeting conjugate of claim 40 wherein R₉ is selected from the group consisting of hydrogen, -C₁₋₄alkoxy, -NH₂, -NH-C₁₋₄alkyl, -N(C₁₋₄alkyl)₂, -C(=O)H, -CO₂H, -C(=O)-C₁₋₄alkoxy, (halo)₁₋₃, hydroxy and oxo.
- The targeting conjugate of claim 40 wherein R₉ is selected from the group consisting of hydrogen, -C₁₋₄alkoxy, -NH₂, -NH-C₁₋₄alkyl, -N(C₁₋₄alkyl)₂, (halo)₁₋₃ and hydroxy.
- 63. The targeting conjugate claim 40 wherein R₁₀ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₄alkyl, -C(=O)+N₁-C(=O)-C₁₋₄alkyl, -C(=O)-NH-C₁₋₄alkyl, -C(=O)-NH-C₁₋₄alkyl, -SO₂-C₁₋₄alkyl, -SO₂-NH₂, -SO₂-NH-C₁₋₄alkyl and -SO₂-N(C₁₋₄alkyl)₂ when attached to a nitrogen atom; and, wherein R₁₀ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₄alkyl, -C₁₋₄alkoxy, -C(=O)+N, -C(=O)-C₁₋₄alkyl, -C(=O)-NH-C₁₋₄alkyl, -C(=O)-N(C₁₋₄alkyl)₂, -CO₂H, -CO₂-C₁₋₄alkyl, -SO₂-C₁₋₄alkyl, -SO₂-NH₂, -SO₂-NH-C₁₋₄alkyl, -SO₂-NH₂, -SO₂-NH-C₁₋₄alkyl, -SO₂-NH₂, -SO₂-NH-C₁₋₄alkyl, -SO₂-NH₂, -S

5

nitro and oxo when attached to a carbon atom.

- 64. The targeting conjugate of claim 40 wherein (R₁₀)₁₋₄ is selected from the group consisting of hydrogen, -C₁₋₄alkyl, -C₁₋₄alkoxy, -C(=O)H, -C(=O)-C₁₋₄alkyl, -CO₂H, -CO₂-C₁₋₄alkyl, -NH₂, -NH-C₁₋₄alkyl, -N(C₁₋₄alkyl)₂, halo, hydroxy, nitro and oxo when attached to a carbon atom.
- 65. The targeting conjugate of claim 40 wherein R_{10} is hydrogen.
- The targeting conjugate of claim 40 wherein R_{2a} is selected from the group consisting of $-C_{1-4}$ alkyl $(R_7)(R_{11})$, $-C_{2-4}$ alkenyl $(R_7)(R_{11})$, $-C_{2-4}$ alkynyl $(R_7)(R_{11})$, $-cycloalkyl(R_7)(R_{11})$, -heterocyclyl $(R_8)(R_{12})$, -aryl $(R_8)(R_{12})$, and -heteroaryl $(R_8)(R_{12})$.
- 15 67. The targeting conjugate of claim 40 wherein R_{2a} is selected from the group consisting of -cycloalkyl(R_7)(R_{11}), -heterocyclyl(R_8)(R_{12}), -aryl(R_8)(R_{12}), and -heteroaryl(R_8)(R_{11}).
- The targeting conjugate of claim 40 wherein R_{2a} is selected from the group consisting of -cycloalkyl(R₇)(R₁₁), -heterocyclyl(R₈)(R₁₂), -phenyl(R₈)(R₁₂), -naphthalenyl(R₈)(R₁₂), and -heteroaryl(R₈)(R₁₁).
- 69. The targeting conjugate claim 40 wherein R_{2a} is selected from the group consisting of -tetrahydropyrimidinyl(R₈)(R₁₂), -1,3-benzodioxolyl(R₈)(R₁₂), -dihydrobenzofuranyl(R₈)(R₁₂), -tetrahydroquinolinyl(R₈)(R₁₂), -phenyl(R₈)(R₁₂), -naphthalenyl(R₈)(R₁₂), -pyridinyl(R₈)(R₁₂), -pyrimidinyl(R₈)(R₁₂), and -quinolinyl(R₈)(R₁₂).
- 70. The targeting conjugate of claim 40 wherein R₁₁ is selected from the group consisting of -C₁₋₈alkyl(R₁₃), -O-C₁₋₈alkyl(R₁₃), -NH-C₁₋₈alkyl(R₁₃), -S-C₁₋₈alkyl(R₁₃), -C(=O)C₁₋₈alkyl(R₁₃), -O-C(=O)C₁₋₈alkyl(R₁₃), -NH-C(=O)C₁₋₈alkyl(R₁₃),

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-C(=O)NHC_{1-8}alkyl(R_{13}), -O-C(=O)OC_{1-8}alkyl(R_{13}),
                    -O-C(=O)NHC_{1-8}alkyl(R_{13}), -O-C(=O)C_{1-8}alkylC(=O)(R_{13}), -NH-
                    C(=O)C_{1-8}alkylC(=O)(R_{13}), -C(=O)OC_{1-8}alkylC(=O)(R_{13}), -O-
                    C(=O)OC_{1-8}alkylC(=O)(R_{13}), -NH-C(=O)OC_{1-8}alkylC(=O)(R_{13}), -
 5
                    C(=O)NHC_{1-8}alkylC(=O)(R_{13}), -O-C(=O)NHC_{1-8}alkylC(=O)(R_{13}), -NH-
                    C(=O)NHC_{1-8}alkylC(=O)(R_{13}), -SCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                    -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                    -SO_2NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                    -C(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
10
                    -OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                    -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                    -NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                    and -SO_2NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}).
15
            71.
                    The targeting conjugate of claim 40 wherein R<sub>11</sub> is selected from the group
                    consisting of -C_{1-8}alkyl(R_{13}), -O-C_{1-8}alkyl(R_{13}), -NH-C_{1-8}alkyl(R_{13}),
                     -S-C_{1-8}alkyl(R_{13}), -C(=O)C_{1-8}alkyl(R_{13}), -O-C(=O)C_{1-8}alkyl(R_{13}),
                    -NH-C(=O)C_{1-8}alkyl(R_{13}), -C(=O)OC_{1-8}alkyl(R_{13}), -C(=O)NHC_{1-8}alkyl(R_{13}),
                    -O-C(=O)OC_{1-8}alkyl(R_{13}), -O-C(=O)NHC_{1-8}alkyl(R_{13}),
20
                    -O-C(=O)C_{1-8}alkylC(=O)(R_{13}), -NH-C(=O)C_{1-8}alkylC(=O)(R_{13}),
                    -C(=O)OC_{1-8}alkylC(=O)(R_{13}), -O-C(=O)OC_{1-8}alkylC(=O)(R_{13}),
                    -NH-C(=O)OC_{1-8}alkylC(=O)(R_{13}), -C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
                    -O-C(=O)NHC_{1-8}alkylC(=O)(R_{13}), and -NH-C(=O)NHC_{1-8}alkylC(=O)(R_{13}).
25
            72.
                    The targeting conjugate of claim 40 wherein R<sub>12</sub> is selected from the group
                    consisting of -C_{1-6}alkyl(R_{13}), -O-C_{1-6}alkyl(R_{13}),
                    -NH-C_{1-4}alkyl(R_{13}), -S-C_{1-6}alkyl(R_{13}), -CH_2O-C_{1-6}alkyl(R_{13}),
                    -CH_2NH-C_{1-6}alkyl(R_{13}), -CH_2S-C_{1-6}alkyl(R_{13}), -C(=O)C_{1-6}alkyl(R_{13}),
                    -O-C(=O)C_{1-6}alkyl(R_{13}), -NH-C(=O)C_{1-8}alkyl(R_{13}),
30
                    -CH_2O-C(=O)C_{1-8}alkyl(R_{13}), -CH_2NH-C(=O)C_{1-6}alkyl(R_{13}),
                    -C(=O)OC_{1-6}alkyl(R_{13}), -C(=O)NHC_{1-6}alkyl(R_{13}),
                    -O-C(=O)OC_{1-6}alkyl(R_{13}), -O-C(=O)NHC_{1-6}alkyl(R_{13}),
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-NH-C(=O)OC_{1-6}alkyl(R_{13}), -NH-C(=O)NHC_{1-6}alkyl(R_{13}),
                             -NH-C(=O)C_{1-6}alkylC(=O)(R_{13}), -CH_2O-C(=O)C_{1-8}alkylC(=O)(R_{13}),
                            -NH-C(=O)NHC_{1-8}alkylC(=O)(R_{13}), -CH_2O-C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
                             -CH<sub>2</sub>NH-C(=O)NHC<sub>1-8</sub>alkylC(=O)(R_{13}),
  5
                            -OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                            -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                             -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                             -OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                            -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
10
                             -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                             -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                             -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                             -NHC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                             -SO_2CH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
15
                             -SO_2NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                             -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                             -CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                             -CH<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                             -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
20
                             -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                             -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                            -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                            -NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                            -CH_2OC(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
25
                            -CH_2NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                            -CH_2NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}), and
                            -CH_2NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13});
                            wherein when R_{11} or R_{12} terminates with a -C(=O)-, R_{13} is selected from the
30
                            group consisting of
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$$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \\ \end{array} \end{array} \end{array} \end{array} \begin{array}{c} \begin{array}{c} \\ \\ \end{array} \end{array} \begin{array}{c} \\ \\ \end{array} \end{array} \begin{array}{c} \begin{array}{c} \\ \\ \end{array} \end{array} \begin{array}{c} \\ \\ \end{array} \begin{array}{c} \\ \\ \end{array} \end{array} \begin{array}{c} \\ \\ \\ \end{array} \begin{array}{c} \\ \\ \\ \end{array} \begin{array}{c} \\ \\ \end{array} \begin{array}{c} \\ \\ \\ \\ \end{array} \begin{array}{c}$$

and when R_{11} or R_{12} does not terminate with a -C(=O)-, R_{13} is selected from the group consisting of

$$\begin{array}{c|c}
 & O \\
 & O \\$$

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HO PO HO O \$-0 HO Q

)

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73. The targeting conjugate of claim 40 wherein R₁₂ is selected from the group consisting of -CH₂O-C₁₋₆alkyl(R₁₃), -CH₂NH-C₁₋₆alkyl(R₁₃),

 $-CH_2S-C_{1-6}alkyl(R_{13}), -NH-C(=O)C_{1-8}alkyl(R_{13}),$

 $-CH_2NH-C(=O)C_{1-6}alkyl(R_{13}), -NH-C(=O)NHC_{1-6}alkyl(R_{13}),$

 $-NH-C(=O)C_{1-6}alkylC(=O)(R_{13}),$

-OCH₂CH₂O(CH₂CH₂O)_rCH₂CH₂(R₁₃),

-NHCH₂CH₂O(CH₂CH₂O)_rCH₂CH₂(R₁₃),

-OCH₂CH₂O(CH₂CH₂O)_rCH₂C(=O)(R₁₃),

-NH(C=O)CH₂O(CH₂CH₂O)_rCH₂CH₂(R₁₃),

-CH₂OCH₂CH₂O(CH₂CH₂O)_rCH₂CH₂(R₁₃),

-CH₂NHCH₂CH₂O(CH₂CH₂O)_rCH₂CH₂(R₁₃),

-CH₂SCH₂CH₂O(CH₂CH₂O)_rCH₂CH₂(R₁₃),

-NH(C=O)CH₂O(CH₂CH₂O)_rCH₂C(=O)(R_{13}), and

 $-CH_2NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}).$

wherein when R_{11} or R_{12} terminates with a -C(=O)-, R_{13} is selected from the group consisting of

$$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \\ \\ \end{array} \end{array} \end{array} \end{array} \begin{array}{c} \begin{array}{c} \\ \\ \\ \end{array} \end{array} \begin{array}{c} \\ \\ \end{array} \end{array} \begin{array}{c} \begin{array}{c} \\ \\ \\ \end{array} \end{array} \begin{array}{c} \\ \\ \end{array} \begin{array}{c} \\ \\ \end{array} \end{array} \begin{array}{c} \\ \\ \\ \end{array} \begin{array}{c} \\ \\ \\ \end{array} \begin{array}{c} \\ \\ \\ \end{array} \begin{array}{c} \\ \\ \end{array} \begin{array}{c} \\ \\ \\ \\ \end{array} \begin{array}{c} \\ \\ \\ \\ \end{array} \begin{array}{c} \\ \\ \\ \end{array} \begin{array}{c} \\ \\ \\ \\ \\ \end{array} \begin{array}{c} \\ \\ \\ \\ \end{array} \begin{array}{c} \\ \\ \\ \\ \\ \end{array} \begin{array}{c} \\ \\ \\ \\ \\ \end{array} \begin{array}{c} \\ \\ \\ \\ \\ \end{array} \begin{array}{$$

and when R_{11} or R_{12} does not terminate with a -C(=O)-, R_{13} is selected from the group consisting of

$$\begin{array}{c|c}
 & O \\
 & O \\$$

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- 74. The targeting conjugate of claim 40 wherein said $-O-(CH_2CH_2O-)_p$ or $-O \xrightarrow{\hspace{1cm} p \hspace{1cm}} O \xrightarrow{\hspace{1cm} p$
- 75. The targeting conjugate of claim 40 wherein wherein Q and Q¹ of substituents

R₁₂ and R₁₃ are the same within a given compound and are selected from the group consisting of the C₁₅ saturated chain of palmitoic acid, the C₁₇ saturated chain of stearoic acid, and the C₁₇ mono-unsaturated chain of oleoic acid.

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76. The targeting conjugate of claim 40 wherein

W is preferably is selected from the group consisting of $-C_{0.4}$ alkyl(R₁),

 $-C_{1-4}$ alkyl (R_{1a}) , $-C_{0-4}$ alkyl-aryl (R_{1},R_{8}) , $-C_{0-4}$ alkyl-heterocyclyl (R_{1},R_{8}) ,

 $-C_{0-4}$ alkoxy (R_1) , $-C_{0-4}$ alkoxy-aryl (R_1,R_8) , and $-C_{0-4}$ alkoxy-heterocyclyl (R_1,R_8) ;

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 R_1 is $-N(R_4)(R_6)$, -heterocyclyl(R_8) or -heteroaryl(R_8);

$$R_{1a}$$
 is $-C(R_4)(=N-R_4)$, $-C(=N-R_4)-N(R_4)_2$, $-C(=N-R_4)-N(R_4)(R_6)$,

$$-C(=N-R_4)-N(R_4)-C(=O)-R_4$$
, $-C(=N-R_4)-N(R_4)-C(=O)-N(R_4)_2$.

 $-C(=N-R_4)-N(R_4)-CO_2-R_4$, $-C(=N-R_4)-N(R_4)-SO_2-C_{1-4}alkyl(R_7)$ or

 $-C(=N-R_4)-N(R_4)-SO_2-N(R_4)_2$;

 R_4 is hydrogen or $-C_{1-4}$ alkyl(R_7);

20

$$R_5$$
 is -C(=O)- R_4 , -C(=O)- $N(R_4)_2$, -C(=O)-cycloalkyl(R_8),

-C(=O)-heterocyclyl(R_8), -C(=O)-aryl(R_8), -C(=O)-heteroaryl(R_8),

 $-C(=O)-N(R_4)-cycloalkyl(R_8), -C(=O)-N(R_4)-aryl(R_8), -CO_2-R_4,$

 $-CO_2$ -cycloalkyl(R₈), $-CO_2$ -aryl(R₈), $-C(R_4)(=N-R_4)$, $-C(=N-R_4)-N(R_4)_2$,

 $-C(=N-R_4)-N(R_4)(R_6)$, $-C(=N-R_4)-N(R_4)-C(=O)-R_4$,

25

$$-C(=N-R_4)-N(R_4)-C(=O)-N(R_4)_2$$
, $-C(=N-R_4)-N(R_4)-CO_2-R_4$,

 $-C(=N-R_4)-N(R_4)-SO_2-C_{1-4}alkyl(R_7), -C(=N-R_4)-N(R_4)-SO_2-N(R_4)_2,$

 $-N(R_4)-C(R_4)(=N-R_4)$, $-N(R_4)-C(=N-R_4)-N(R_4)$, $-N(R_4)-C(=N-R_4)-N(R_4)$, $-N(R_4)-C(=N-R_4)$

 $-N(R_4)-C(=N-R_4)-N(R_4)-C(=O)-R_4$, $-N(R_4)-C(=N-R_4)-N(R_4)-C(=O)-N(R_4)_2$,

 $-N(R_4)-C(=N-R_4)-N(R_4)-CO_2-R_4$, $-N(R_4)-C(=N-R_4)-N(R_4)-SO_2-C_{1-4}alkyl(R_7)$,

30 $-N(R_4)-C(=N-R_4)-N(R_4)-SO_2-N(R_4)_2$, $-SO_2-C_{1-4}$ alkyl (R_7) , $-SO_2-N(R_4)_2$,

 $-SO_2$ -cycloalkyl(R₈) or $-SO_2$ -aryl(R₈);

 R_6 is -heterocyclyl(R_8) or -heteroaryl(R_8);

```
R<sub>7</sub> is one to two substituents independently selected from hydrogen,
                       -C_{1-4}alkoxy(R_9), -NH_2, -NH-C_{1-4}alkyl(R_9), -N(C_{1-4}alkyl(R_9))_2, -C(=O)H,
   5
                       -C(=O)-C_{1-4}alkyl(R_9), -C(=O)-NH_2, -C(=O)-NH-C_{1-4}alkyl(R_9),
                       -C(=O)-N(C_{1-4}alkyl(R_9))_2, -C(=O)-NH-aryl(R_{10}), -C(=O)-cycloalkyl(R_{10}),
                       -C(=O)-heterocyclyl(R_{10}), -C(=O)-aryl(R_{10}), -C(=O)-heteroaryl(R_{10}), -CO_2H,
                       -CO_2-C_{1-4}alkyl(R_9), -CO_2-aryl(R_{10}), -C(=NH)-NH_2, -SH, -S-C_{1-4}alkyl(R_9),
                       -S-C_{1-4}alkyl-S-C_{1-4}alkyl(R_9), -S-C_{1-4}alkyl-C_{1-4}alkoxy(R_9),
10
                       -S-C_{1-4}alkyl-NH-C_{1-4}alkyl(R<sub>9</sub>), -SO_{2}-C_{1-4}alkyl(R<sub>9</sub>), -SO_{2}-NH_{2},
                       -SO_2-NH-C_{1-4}alkyl(R_9), -SO_2-N(C_{1-4}alkyl(R_9))_2, -SO_2-aryl(R_{10}), cyano, (halo)<sub>1-3</sub>,
                       hydroxy, nitro, oxo, -cycloalkyl(R_{10}), -heterocyclyl(R_{10}), -aryl(R_{10}) or
                       -heteroaryl(R_{10});
  15
                       R<sub>8</sub> is one to four substituents independently selected from hydrogen,
                       -C_{1-4}alkyl(R<sub>9</sub>), -C(=O)H, -C(=O)-NH_2, -C(=O)-NH-C_{1-4}alkyl(R<sub>9</sub>),
                       -C(=O)-N(C_{1-4}alkyl(R_9))_2, -CO_2H, -CO_2-C_{1-4}alkyl(R_9) or -SO_2-NH_2 when
                       attached to a nitrogen atom; and, wherein R<sub>8</sub> is one to four substituents
                       independently selected from hydrogen, -C<sub>1-4</sub>alkyl(R<sub>9</sub>), -C<sub>1-4</sub>alkoxy(R<sub>9</sub>),
  20
                       -O-aryl(R_{10}), -C(=O)H, -C(=O)-NH_2, -C(=O)-NH-C_{1-4}alkyl(R_9),
                       -C(=O)-N(C_{1-4}alkyl(R_9))_2, -CO_2H, -CO_2-C_{1-4}alkyl(R_9), -SO_2-NH_2, -NH_2,
                       -NH-C_{1-4}alkyl(R_9), -N(C_{1-4}alkyl(R_9))_2, cyano, halo, hydroxy, nitro or oxo when
                       attached to a carbon atom;
  25
                       R_9 is hydrogen, -C_{1-4}alkoxy, -NH_2, -NH-C_{1-4}alkyl, -N(C_{1-4}alkyl)_2, -C(=O)H,
                       -C(=O)-NH_2, -C(=O)-NH-C_{1-4}alkyl, -C(=O)-N(C_{1-4}alkyl)_2, -CO_2H,
                       -CO_2-C_{1-4}alkyl, -SO_2-C_{1-4}alkyl, -SO_2-NH_2, -SO_2-NH-C_{1-4}alkyl,
                       -SO<sub>2</sub>-N(C<sub>1-4</sub>alkyl)<sub>2</sub>, cyano, (halo)<sub>1-3</sub>, hydroxy, nitro or oxo;
  30
                       R<sub>10</sub> is one to four substituents independently selected from hydrogen, -C<sub>1.4</sub>alkyl,
                       -C(=O)H, -C(=O)-C_{1-4}alkyl, -C(=O)-NH_2, -C(=O)-NH-C_{1-4}alkyl,
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 $-C(=O)-N(C_{1-4}alkyl)_2$, $-CO_2H$, $-CO_2-C_{1-4}alkyl$, $-SO_2-C_{1-4}alkyl$, $-SO_2-NH_2$,

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-SO<sub>2</sub>-NH-C<sub>1-4</sub>alkyl or -SO<sub>2</sub>-N(C<sub>1-4</sub>alkyl)<sub>2</sub> when attached to a nitrogen atom; and,
                         wherein R_{10} is one to four substituents independently selected from hydrogen,
                         -C_{1-4}alkyl, -C_{1-4}alkoxy, -C(=O)H, -C(=O)-C_{1-4}alkyl, -C(=O)-NH_2,
                         -C(=O)-NH-C_{1-4}alkyl, -C(=O)-N(C_{1-4}alkyl)_2, -CO_2H, -CO_2-C_{1-4}alkyl,
 5
                         -SO_2-C_{1-4}alkyl, -SO_2-NH_2, -SO_2-NH-C_{1-4}alkyl, -SO_2-N(C_{1-4}alkyl)<sub>2</sub>, -NH_2,
                         -NH-C<sub>1-4</sub>alkyl, -N(C<sub>1-4</sub>alkyl)<sub>2</sub>, cyano, halo, hydroxy, nitro or oxo when attached
                         to a carbon atom;
                         R_{2a} is -cycloalkyl(R_8)(R_{11}), -heterocyclyl(R_8)(R_{12}), -aryl(R_8)(R_{12}) or
10
                         -heteroaryl(R_8)(R_{12});
                         q is 1, 2 or 3.
                         R_{11} is selected from the group consisting of -C_{1-8}alkyl(R_{13}),
15
                         -O-C_{1-8}alkyl(R<sub>13</sub>), -NH-C_{1-8}alkyl(R<sub>13</sub>),
                         -S-C_{1-8}alkyl(R_{13}), -C(=O)C_{1-8}alkyl(R_{13}), -O-C(=O)C_{1-8}alkyl(R_{13}),
                         -NH-C(=O)C_{1-8}alkyl(R_{13}), -C(=O)OC_{1-8}alkyl(R_{13}), -C(=O)NHC_{1-8}alkyl(R_{13}),
                         -O-C(=O)OC_{1-8}alkyl(R_{13}), -O-C(=O)NHC_{1-8}alkyl(R_{13}),
                         -O-C(=O)C_{1-8}alkylC(=O)(R_{13}), -NH-C(=O)C_{1-8}alkylC(=O)(R_{13}),
20
                         -C(=O)OC_{1-8}alkylC(=O)(R_{13}), -O-C(=O)OC_{1-8}alkylC(=O)(R_{13}),
                         -NH-C(=O)OC_{1-8}alkylC(=O)(R_{13}), -C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
                         -O-C(=O)NHC_{1-8}alkylC(=O)(R_{13}), -NH-C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
                         -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                         -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
25
                         -SO<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                         -C(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                         -OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                         -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                         -NHC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                         and -SO<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>);
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R₁₂ is selected from the group consisting of

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-C_{1-6}alkyl(R<sub>13</sub>), -O-C_{1-6}alkyl(R<sub>13</sub>),
                         -NH-C_{1-4}alkyl(R_{13}), -S-C_{1-6}alkyl(R_{13}), -CH_2O-C_{1-6}alkyl(R_{13}),
                         -CH_2NH-C_{1-6}alkyl(R_{13}), -CH_2S-C_{1-6}alkyl(R_{13}), -C(=O)C_{1-6}alkyl(R_{13}),
                         -O-C(=O)C_{1-6}alkyl(R_{13}), -NH-C(=O)C_{1-8}alkyl(R_{13}),
 5
                         -CH_2O-C(=O)C_{1-8}alkyl(R_{13}), -CH_2NH-C(=O)C_{1-6}alkyl(R_{13}),
                         -C(=O)OC_{1-6}alkyl(R_{13}), -C(=O)NHC_{1-6}alkyl(R_{13}),
                         -O-C(=O)OC_{1-6}alkyl(R_{13}), -O-C(=O)NHC_{1-6}alkyl(R_{13}),
                         -NH-C(=O)OC_{1-6}alkyl(R_{13}), -NH-C(=O)NHC_{1-6}alkyl(R_{13}),
                         -NH-C(=O)C_{1-6}alkylC(=O)(R_{13}), -CH_2O-C(=O)C_{1-8}alkylC(=O)(R_{13}),
10
                         -NH-C(=O)NHC_{1-8}alkylC(=O)(R_{13}), -CH_2O-C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
                         -CH<sub>2</sub>NH-C(=O)NHC<sub>1-8</sub>alkylC(=O)(R<sub>13</sub>),
                         -OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                         -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                         -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                         -OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
15
                         -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                         -OC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                         -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                         -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
20
                         -NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                         -SO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                         -SO_2NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                         -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                         -CH_2NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),\\
25
                         -CH<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                         -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                         -OC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                         -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                         -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
30
                         -NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                         -CH_2OC(=O)CH_2O(CH_2CH_2O)_{r}CH_2C(=O)(R_{13}),
                         -CH_2NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
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-CH₂NHC(=O)OCH₂CH₂O(CH₂CH₂O)_rCH₂C(=O)(R₁₃), and

-CH₂NHC(=O)NHCH₂CH₂O(CH₂CH₂O)_rCH₂C(=O)(R_{13});

wherein when R_{11} or R_{12} terminates with a -C(=O)-, R_{13} is selected from the group consisting of

$$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \\ \end{array}\end{array}\end{array}\end{array} \end{array} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \\ \end{array}\end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \begin{array}{c} \\ \\ \end{array}\end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \end{array} \begin{array}{c} \\ \end{array} \\ \end{array} \begin{array}{c} \\ \end{array} \begin{array}{c}$$

and when R_{11} or R_{12} does not terminate with a -C(=O)-, R_{13} is selected from the group consisting of

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said -O- $(CH_2CH_2O)_p$ - or p of R_{12} and R_{13} is a polyethylene glycol (PEG) polymer ranging in molecular weight from 750 to 5000 daltons;

r is an integer from 0 to 8;

5

Q and Q^1 of substituents R_{12} and R_{13} are the same within a given compound and are selected from the group consisting of

the C₁₁ saturated chain of lauric acid,

the C₁₅ saturated chain of palmitoic acid,

the C₁₇ saturated chain of stearoic acid,

the C₁₇ mono-unsaturated chain of oleoic acid, and

the C₁₇ di-unsaturated chain of linoleic acid;

- Z is selected from the group consisting of hydroxy, -NH₂, -NH-C₁₋₈alkyl,
 -N(C₁₋₈alkyl)₂, -O-C₁₋₈alkyl, -O-C₁₋₈alkyl-OH, -O-C₁₋₈alkylC₁₋₄alkoxy, -OC₁₋₈alkylcarbonylC₁₋₄alkyl, -O-C₁₋₈alkyl-CO₂H, -O-C₁₋₈alkyl-C(O)O-C₁₋₆alkyl, O-C₁₋₈alkyl-O-C(O)C₁₋₈alkyl, -O-C₁₋₈alkyl-NH₂, -O-C₁₋₈alkyl-NH-C₁₋₈alkyl, -OC₁₋₈alkyl-N(C₁₋₈alkyl)₂, -O-C₁₋₈alkylamide -O-C₁₋₈alkyl-C(O)-NH-C₁₋₈alkyl, -
- 15 O-C₁₋₈alkyl-C(O)-N(C₁₋₈alkyl)₂ and -NHC(O)C₁₋₈alkyl.
 - 77. The targeting conjugate of claim 40 wherein
- W is preferably $-C_{0-4}$ alkyl (R_1) or $-C_{0-4}$ alkyl-phenyl (R_1,R_8) ;

 R_1 is $-N(R_4)(R_6)$, -tetrahydropyrimidinyl(R_8) or -tetrahydro-1,8-naphthyridinyl(R_8);

- $\begin{array}{lll} 25 & R_{1a} \text{ is } -C(R_4)(=N-R_4), \ -C(=N-R_4)-N(R_4)_2, \ -C(=N-R_4)-N(R_4)(R_6), \\ & -C(=N-R_4)-N(R_4)-C(=O)-R_4, \ -C(=N-R_4)-N(R_4)-C(=O)-N(R_4)_2, \\ & -C(=N-R_4)-N(R_4)-CO_2-R_4, \ -C(=N-R_4)-N(R_4)-SO_2-C_{1-4}alkyl(R_7) \text{ or } \\ & -C(=N-R_4)-N(R_4)-SO_2-N(R_4)_2; \end{array}$
- R₄ is hydrogen;

 R_5 is $-C(=O)-R_4$, $-C(=O)-N(R_4)_2$, $-CO_2-R_4$, $-C(R_4)(=N-R_4)$, $-C(=N-R_4)-N(R_4)_2$, $-C(=N-R_4)-N(R_4)(R_6)$, $-N(R_4)-C(R_4)(=N-R_4)$, $-N(R_4)-C(=N-R_4)-N(R_4)_2$, 292

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-N(R_4)-C(=N-R_4)-N(R_4)(R_6), -SO_2-C_{1-4}alkyl(R_7) or -SO_2-N(R_4)_2;
                    R_6 is -dihydroimidazolyl(R_8), -tetrahydropyridinyl(R_8),
                    -tetrahydropyrimidinyl(R<sub>8</sub>) or -pyridinyl(R<sub>8</sub>);
 5
                    R<sub>7</sub> is hydrogen;
                    R<sub>8</sub> is one to four substituents independently selected from hydrogen or
                    -C_{1-4}alkyl(R_9) when attached to a nitrogen atom; and, wherein R_8 is one to four
10
                    substituents independently selected from hydrogen, -C<sub>1-4</sub>alkyl(R<sub>9</sub>),
                    -C_{1-4}alkoxy(R_9) -O-aryl(R_{10}) or hydroxy when attached to a carbon atom;
                    R_9 is hydrogen, -C_{1-4}alkoxy, -NH_2, -NH-C_{1-4}alkyl, -N(C_{1-4}alkyl)<sub>2</sub>, (halo)<sub>1-3</sub> or
15
                    hydroxy;
                    R<sub>10</sub> is hydrogen;
                    R_{2a} is -tetrahydropyrimidinyl(R_8)(R_{12}), -1,3-benzodioxolyl(R_8)(R_{12}),
20
                    -dihydrobenzofuranyl(R_8)(R_{12}), -tetrahydroquinolinyl(R_8)(R_{12}),
                    -phenyl(R_8)(R_{12}), -naphthalenyl(R_8)(R_{12}), -pyridinyl(R_8)(R_{12}),
                    -pyrimidinyl(R_8)(R_{12}) or -quinolinyl(R_8)(R_{12});
                    q is 1 or 2;
25
                    R_{12} is selected from the group consisting of
                    -CH_2-O-(CH_2)_4(R_{13})-
                    -CH_2-NH-(CH_2)_4(R_{13})-
                    -CH_2-S-(CH_2)_4(R_{13})-,
30
                    -CH_2-O-(CH_2)_6(R_{13})-
                    -CH_2-NH-(CH_2)_6(R_{13})-
                    -CH_2-S-(CH_2)_6(R_{13})-
```

 $-NH-C(=O)-(CH_2)_4(R_{13})-,$

-NH-C(=O)-(CH₂)₇(R₁₃)-,

 $-NH-C(=O)NH-(CH_2)_3(R_{13})-,$

 $-NH-C(=O)NH-(CH_2)_6(R_{13})-,$

5 $-CH_2NH-C(=O)NH-(CH_2)_2(R_{13})$ -,

 $-CH_2NH-C(=O)NH-(CH_2)_5(R_{13})-,$

 $-NHC(=O)-(CH_2)_2-C(=O)(R_{13})-,$

 $-NHC(=O)-(CH_2)_3-C(=O)(R_{13})-,$

-NHC(=O)-(CH₂)₄-C(=O)(R₁₃)-,

-OCH₂CH₂OCH₂CH₂(R₁₃)-,

-NHCH2CH2OCH2CH2(R13)-,

-OCH₂CH₂OCH₂CH₂OCH₂CH₂(R₁₃)-,

-NHCH2CH2OCH2CH2CH2CH2(R13)-,

 $-OCH_2CH_2OCH_2C(=O)(R_{13})-$

-OCH₂CH₂OCH₂CH₂OCH₂C(=O)(R₁₃)-,

-NHC(=O)CH₂OCH₂CH₂(R_{13})-,

-NHC(=O)CH₂OCH₂CH₂OCH₂CH₂(R₁₃)-,

-CH₂OCH₂CH₂OCH₂CH₂(R₁₃)-,

-CH₂NHCH₂CH₂OCH₂CH₂(R₁₃)-,

 $-CH_2SCH_2CH_2OCH_2CH_2(R_{13})$ -,

-CH₂OCH₂CH₂OCH₂CH₂OCH₂CH₂(R₁₃)-,

-CH₂NHCH₂CH₂OCH₂CH₂OCH₂CH₂(R₁₃)-,

-CH₂SCH₂CH₂OCH₂CH₂OCH₂CH₂(R₁₃)-,

-CH₂NHC(=O)CH₂OCH₂C(=O)(R_{13})-, and

25 -NHC(=O)CH₂OCH₂C(=O)(R_{13})-;

wherein when R_{11} or R_{12} terminates with a -C(=O)-, R_{13} is selected from the group consisting of

and

$$-\underset{H}{\overset{N}{\bigvee}} \circ (\underset{p}{\overset{N}{\bigvee}} \circ \underset{Q}{\overset{N}{\bigvee}} \circ -\underset{Q}{\overset{H}{\bigvee}} \circ \underset{Q}{\overset{N}{\bigvee}} \circ \underset{Q}{\overset{N}$$

and when R_{11} or R_{12} does not terminate with a -C(=O)-, R_{13} is selected from the group consisting of

$$\begin{array}{c|c}
 & O \\
 & O \\$$

10

wherein said -O-(CH₂CH₂O-)_n- or polyethylene glycol (PEG) polymer selected from 2000 (PEG 2000), 3400 (PEG 3400), or 5000 (PEG 5000) Daltons;

5

r is an integer from 0 to 8;

Q and Q^1 of substituents R_{12} and R_{13} are the same within a given compound and is the C₁₇ saturated chain of stearoic acid;

10

Z is selected from the group consisting of hydroxy, -NH₂, -NH-C_{1.8}alkyl, $-N(C_{1-8}alkyl)_2$, $-O-C_{1-8}alkyl$, $-O-C_{1-8}alkyl-OH$, $-O-C_{1-8}alkylC_{1-4}alkoxy$, $-O-C_{1-8}alkyl-OH$ C₁₋₈alkylcarbonylC₁₋₄alkyl, -O-C₁₋₈alkyl-CO₂H, -O-C₁₋₈alkyl-C(O)O-C₁₋₆alkyl, - $O-C_{1-8}$ alkyl $-O-C(O)C_{1-8}$ alkyl, $-O-C_{1-8}$ alkyl $-NH_2$, $-O-C_{1-8}$ alkyl $-NH-C_{1-8}$ alkyl, $-O-C_{1-8}$ alkyl C_{1-8} alkyl- $N(C_{1-8}$ alkyl)₂, $-O-C_{1-8}$ alkylamide $-O-C_{1-8}$ alkyl- $C(O)-NH-C_{1-8}$ alkyl, - $O-C_{1-8}$ alkyl- $C(O)-N(C_{1-8}$ alkyl)₂ and -NHC(O)C₁₋₈alkyl.

15

78. A therapeutic liposome composition sensitized to a target cell, comprising

20

(i) a liposomal composition composed of pre-formed liposomes having an entrapped therapeutic agent; and

(ii) a plurality of targeting conjugates, each conjugate composed of

25

(a) a lipid having a polar head group and a hydrophobic tail, (b) a hydrophilic polymer having a proximal end and a distal end, where the polymer is attached at its proximal end to the head group of the lipid, and

(c) a targeting ligand attached to the distal end of the polymer.

79. The liposome of claim 78 wherein the targeting conjugate has a formula selected from the group consisting of

30

Formula (I):

Formula (I)

and Formula (II):

$$Z$$
 $(CH_2)_q$
 R_2

Formula (II)

5 wherein

15

W is selected from the group consisting of -C₀₋₆alkyl(R₁), -C₁₋₆alkyl(R_{1a}),

- $-C_{0-6}$ alkyl-aryl (R_1,R_8) , $-C_{0-6}$ alkyl-heterocyclyl (R_1,R_8) , $-C_{0-6}$ alkoxy (R_1) ,
- $-C_{0-6}$ alkoxy-aryl(R_1,R_8), and $-C_{0-6}$ alkoxy-heterocyclyl(R_1,R_8);
- 10 R_1 is selected from the group consisting of hydrogen, $-N(R_4)_2$, $-N(R_4)(R_5)$, $-N(R_4)(R_6)$, -heterocyclyl(R_8) and -heteroaryl(R_8);

 R_{1a} is selected from the group consisting of $-C(R_4)(=N-R_4)$, $-C(=N-R_4)-N(R_4)$,

$$-C(=N-R_4)-N(R_4)(R_6)$$
, $-C(=N-R_4)-N(R_4)-C(=O)-R_4$,

 $-C(=N-R_4)-N(R_4)-C(=O)-N(R_4)_2$, $-C(=N-R_4)-N(R_4)-CO_2-R_4$,

 $-C(=N-R_4)-N(R_4)-SO_2-C_{1-8}alkyl(R_7)$ and $-C(=N-R_4)-N(R_4)-SO_2-N(R_4)_2$;

 R_4 is selected from the group consisting of hydrogen and $-C_{1.8}$ alkyl (R_7) ;

R₅ is selected from the group consisting of $-C(=O)-R_4$, $-C(=O)-N(R_4)_2$,

15

25

```
-C(=O)-cycloalkyl(R<sub>8</sub>), -C(=O)-heterocyclyl(R<sub>8</sub>), -C(=O)-aryl(R<sub>8</sub>),
-C(=O)-heteroaryl(R<sub>8</sub>), -C(=O)-N(R<sub>4</sub>)-cycloalkyl(R<sub>8</sub>), -C(=O)-N(R<sub>4</sub>)-aryl(R<sub>8</sub>),
-CO<sub>2</sub>-R<sub>4</sub>, -CO<sub>2</sub>-cycloalkyl(R<sub>8</sub>), -CO<sub>2</sub>-aryl(R<sub>8</sub>), -C(R<sub>4</sub>)(=N-R<sub>4</sub>), -C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)<sub>2</sub>,
-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)(R<sub>6</sub>), -C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-C(=O)-R<sub>4</sub>,

5 -C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-C(=O)-N(R<sub>4</sub>)<sub>2</sub>, -C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-CO<sub>2</sub>-R<sub>4</sub>,
-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-SO<sub>2</sub>-C<sub>1-8</sub>alkyl(R<sub>7</sub>), -C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-SO<sub>2</sub>-N(R<sub>4</sub>)<sub>2</sub>,
-N(R<sub>4</sub>)-C(R<sub>4</sub>)(=N-R<sub>4</sub>), -N(R<sub>4</sub>)-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)<sub>2</sub>, -N(R<sub>4</sub>)-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-C(=O)-N(R<sub>4</sub>)<sub>2</sub>,
-N(R<sub>4</sub>)-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-C(=O)-R<sub>4</sub>, -N(R<sub>4</sub>)-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-C(=O)-N(R<sub>4</sub>)<sub>2</sub>,
-N(R<sub>4</sub>)-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-CO<sub>2</sub>-R<sub>4</sub>, -N(R<sub>4</sub>)-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-SO<sub>2</sub>-C<sub>1-8</sub>alkyl(R<sub>7</sub>),
-N(R<sub>4</sub>)-C(=N-R<sub>4</sub>)-N(R<sub>4</sub>)-SO<sub>2</sub>-N(R<sub>4</sub>)<sub>2</sub>, -SO<sub>2</sub>-C<sub>1-8</sub>alkyl(R<sub>7</sub>), -SO<sub>2</sub>-N(R<sub>4</sub>)<sub>2</sub>,
-SO<sub>2</sub>-cycloalkyl(R<sub>8</sub>) and -SO<sub>2</sub>-aryl(R<sub>8</sub>);
```

 R_6 is selected from the group consisting of -cycloalkyl(R_8), -heterocyclyl(R_8), -aryl(R_8) and -heteroaryl(R_8);

R₇ is one to two substituents independently selected from the group consisting of hydrogen, -C₁₋₈alkoxy(R₉), -NH₋C₁₋₈alkyl(R₉), -N(C₁₋₈alkyl(R₉))₂, -C(=O)H, -C(=O)-C₁₋₈alkyl(R₉), -C(=O)-NH₋C₁₋₈alkyl(R₉), -C(=O)-NH-aryl(R₁₀), -C(=O)-cycloalkyl(R₁₀), -C(=O)-heterocyclyl(R₁₀), -C(=O)-heteroaryl(R₁₀), -CO₂H,

-CO₂-C₁₋₈alkyl(R₉), -CO₂-aryl(R₁₀), -C(=NH)-NH₂, -SH, -S-C₁₋₈alkyl(R₉), -S-C₁₋₈alkyl-S-C₁₋₈alkyl(R₉), -S-C₁₋₈alkyl-C₁₋₈alkoxy(R₉),

 $-S-C_{1-8}alkyl-NH-C_{1-8}alkyl(R_9), -SO_2-C_{1-8}alkyl(R_9), -SO_2-NH_2, \\$

 $-SO_2-NH-C_{1-8}alkyl(R_9), -SO_2-N(C_{1-8}alkyl(R_9))_2, -SO_2-aryl(R_{10}), \ cyano, \ (halo)_{1-3}, \\$

hydroxy, nitro, oxo, -cycloalkyl(R_{10}), -heterocyclyl(R_{10}), -aryl(R_{10}) and -heteroaryl(R_{10});

R₈ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₈alkyl(R₉), -C(=O)H, -C(=O)-C₁₋₈alkyl(R₉), -C(=O)-NH₂,

-C(=O)-NH-C₁₋₈alkyl(R₉), -C(=O)-N(C₁₋₈alkyl(R₉))₂, -C(=O)-NH-aryl(R₁₀),

-C(=O)-cycloalkyl(R₁₀), -C(=O)-heterocyclyl(R₁₀), -C(=O)-aryl(R₁₀),

-C(=O)-heteroaryl(R₁₀), -CO₂H, -CO₂-C₁₋₈alkyl(R₉), -CO₂-aryl(R₁₀), -C(=NH)-NH₂,

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-SO_2-C_{1-8}alkyl(R_9), -SO_2-NH_2, -SO_2-NH-C_{1-8}alkyl(R_9), -SO_2-N(C_{1-8}alkyl(R_9))_2,
               -SO_2-aryl(R_{10}), -cycloalkyl(R_{10}) and -aryl(R_{10}) when attached to a nitrogen atom;
               and, wherein R<sub>8</sub> is one to four substituents independently selected from the group
               consisting of hydrogen, -C<sub>1-8</sub>alkyl(R<sub>9</sub>), -C<sub>1-8</sub>alkoxy(R<sub>9</sub>), -O-cycloalkyl(R<sub>10</sub>),
 5
               -O-aryl(R_{10}), -C(=O)H, -C(=O)-C_{1-8}alkyl(R_9), -NHC(=O)-C_{1-8}alkyl(R_9),
               -C(=O)-NH_2, -C(=O)-NH-C_{1-8}alkyl(R_9), -C(=O)-N(C_{1-8}alkyl(R_9))_2,
               -C(=O)-NH-aryl(R_{10}), -NHC(=O)-NH_2, -NHC(=O)-NH-C_{1-8}alkyl(R_9),
               -NHC(=O)-N(C_{1-8}alkyl(R_9))_2, -NHC(=O)-NH-aryl(R_{10}),
               -NHC(=O)-O-C_{1-8}alkyl(R_9), -NHC(=O)-O-aryl(R_{10}), -C(=O)-cycloalkyl(R_{10}),
10
               -C(=O)-heterocyclyl(R_{10}), -C(=O)-aryl(R_{10}), -C(=O)-heteroaryl(R_{10}),
               -NHC(=O)-cycloalkyl(R_{10}), -NHC(=O)-heterocyclyl(R_{10}), -NHC(=O)-aryl(R_{10}),
               -NHC(=O)-heteroaryl(R_{10}), -CO<sub>2</sub>H, -CO<sub>2</sub>-C_{1-8}alkyl(R_{9}), -CO<sub>2</sub>-aryl(R_{10}),
               -C(=NH)-NH_2, -SO_2-C_{1-8}alkyl(R_9), -SO_2-NH_2, -SO_2-NH-C_{1-8}alkyl(R_9),
               -SO_2-N(C_{1-8}alkyl(R_9))_2, -SO_2-aryl(R_{10}), -NHSO_2-C_{1-8}alkyl(R_9), -NHSO_2-aryl(R_{10}),
15
               -SH, -S-C_{1-8}alkyl(R_9), -S-C_{1-8}alkyl-S-C_{1-8}alkyl(R_9), -S-C_{1-8}alkyl-C_{1-8}alkoxy(R_9),
               -S-C_{1-8}alkyl-NH-C_{1-8}alkyl(R_9), -NH_2, -NH-C_{1-8}alkyl(R_9), -N(C_{1-8}alkyl(R_9))<sub>2</sub>, cyano,
               halo, hydroxy, nitro, oxo, -cycloalkyl(R_{10}), -heterocyclyl(R_{10}), -aryl(R_{10}), and
               -heteroaryI(R_{10}) when attached to a carbon atom;
```

- 20 R₉ is selected from the group consisting of hydrogen, $-C_{1-8}$ alkoxy, $-NH_2$, $-NH-C_{1-8}$ alkyl, $-N(C_{1-8}$ alkyl)₂, -C(=O)H, $-C(=O)-NH_2$, $-C(=O)-NH-C_{1-8}$ alkyl, $-C(=O)-N(C_{1-8}$ alkyl)₂, $-CO_2H$, $-CO_2-C_{1-8}$ alkyl, $-SO_2-C_{1-8}$ alkyl, $-SO_2-NH_2$, $-SO_2-NH-C_{1-8}$ alkyl, $-SO_2-N(C_{1-8}$ alkyl)₂, cyano, (halo)₁₋₃, hydroxy, nitro and oxo;
- R₁₀ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₈alkyl, -C(=O)H, -C(=O)-C₁₋₈alkyl, -C(=O)-NH₂, -C(=O)-NH-C₁₋₈alkyl, -C(=O)-N(C₁₋₈alkyl)₂, -CO₂H, -CO₂-C₁₋₄alkyl, -SO₂-NH₂, -SO₂-NH-C₁₋₈alkyl and -SO₂-N(C₁₋₈alkyl)₂ when attached to a nitrogen atom; and, wherein R₁₀ is one to four substituents independently selected from the group consisting of hydrogen, -C₁₋₈alkyl, -C₁₋₈alkoxy, -C(=O)H, -C(=O)-C₁₋₈alkyl, -C(=O)-NH₂, -C(=O)-NH-C₁₋₈alkyl, -C(=O)-N(C₁₋₈alkyl)₂, -CO₂H, -CO₂-C₁₋₄alkyl, -SO₂-C₁₋₈alkyl, -SO₂-NH₂,

```
halo, hydroxy, nitro and oxo when attached to a carbon atom;
              q is 0, 1, 2, or 3;
 5
              R_{2a} is selected from the group consisting of -C_{1-8}alkyl(R_7)(R_{11}), -C_{2-8}alkenyl(R_7)(R_{11})
                    -C_{2-8}alkynyl(R_7)(R_{11}), -cycloalkyl(R_7)(R_{11}), -heterocyclyl(R_8)(R_{12}), -aryl(R_8)(R_{12}) and
                    -heteroaryl(R_8)(R_{12});
10
              R_{11} is selected from the group consisting of -C_{1-8}alkyl(R_{13}),
                    -O-C_{1-8}alkyl(R_{13}), -NH-C_{1-8}alkyl(R_{13}), -S-C_{1-8}alkyl(R_{13}), -C(=O)C_{1-8}alkyl(R_{13}),
                    -O-C(=O)C_{1-8}alkyl(R_{13}), -NH-C(=O)C_{1-8}alkyl(R_{13}), -C(=O)OC_{1-8}alkyl(R_{13}),
                    -C(=O)NHC_{1-8}alkyl(R_{13}), -O-C(=O)OC_{1-8}alkyl(R_{13}),
                    -O-C(=O)NHC_{1-8}alkyl(R_{13}), -NH-C(=O)OC_{1-8}alkyl(R_{13}),
15
                   -NH-C(=O)NHC_{1-8}alkyl(R_{13}), -C(=O)C_{1-8}alkylC(=O)(R_{13}),
                    -O-C(=O)C_{1-8}alkylC(=O)(R_{13}), -NH-C(=O)C_{1-8}alkylC(=O)(R_{13}),
                   -C(=O)OC_{1-8}alkylC(=O)(R_{13}), -O-C(=O)OC_{1-8}alkylC(=O)(R_{13}),
                   -NH-C(=O)OC_{1-8}alkylC(=O)(R_{13}), -C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
                   -O-C(=O)NHC_{1-8}alkylC(=O)(R_{13}), -NH-C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
20
                   -OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                   -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                   -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                   -OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                   -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
25
                   -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                   -OC(=O)CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                   -OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                   -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                   -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
30
                   -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                   -NHC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                   -SO_2CH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
```

 $-SO_2-NH-C_{1-8}$ alkyl, $-SO_2-N(C_{1-8}$ alkyl)₂, $-NH_2$, $-NH-C_{1-8}$ alkyl, $-N(C_{1-8}$ alkyl)₂, cyano,

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-SO<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                 -C(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                 -OC(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                 -OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
 5
                 -OC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                 -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                 -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                 -NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                 -SO_2CH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}), and
10
                 -SO_2NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13});
            R_{12} is selected from the group consisting of -C_{1-8}alkyl(R_{13}), -O-C_{1-8}alkyl(R_{13}),
                 -NH-C_{1-8}alkyl(R_{13}), -S-C_{1-8}alkyl(R_{13}), -CH_2O-C_{1-8}alkyl(R_{13}),
                 -CH_2NH-C_{1-8}alkyl(R_{13}), -CH_2S-C_{1-8}alkyl(R_{13}), -C(=O)C_{1-8}alkyl(R_{13}),
15
                 -O-C(=O)C_{1-8}alkyl(R_{13}), -NH-C(=O)C_{1-8}alkyl(R_{13}),
                 -CH_2O-C(=O)C_{1-8}alkyl(R_{13}), -CH_2NH-C(=O)C_{1-8}alkyl(R_{13}),
                      -C(=O)OC_{1-8}alkyl(R_{13}), -C(=O)NHC_{1-8}alkyl(R_{13}),
                     -O-C(=O)OC_{1-8}alkyl(R_{13}), -O-C(=O)NHC_{1-8}alkyl(R_{13}),
                 -NH-C(=O)OC_{1-8}alkyl(R_{13}), -NH-C(=O)NHC_{1-8}alkyl(R_{13}),
20
                 -CH_2O-C(=O)OC_{1-8}alkyl(R_{13}), -CH_2O-C(=O)NHC_{1-8}alkyl(R_{13}),
                 -CH_2NH-C(=O)OC_{1-8}alkyl(R_{13}), -CH_2NH-C(=O)NHC_{1-8}alkyl(R_{13}),
                 -C(=O)C_{1-8}alkylC(=O)(R_{13}), -O-C(=O)C_{1-8}alkylC(=O)(R_{13}),
                 -NH-C(=O)C_{1-8}alkylC(=O)(R_{13}), -CH_2O-C(=O)C_{1-8}alkylC(=O)(R_{13}),
                 -CH_2NH-C(=O)C_{1-8}alkylC(=O)(R_{13}), -C(=O)OC_{1-8}alkylC(=O)(R_{13}),
25
                 -O-C(=O)OC_{1-8}alkylC(=O)(R_{13}), -NH-C(=O)OC_{1-8}alkylC(=O)(R_{13}),
                 -CH_2O-C(=O)OC_{1.8}alkylC(=O)(R_{13}), -CH_2NH-C(=O)OC_{1.8}alkylC(=O)(R_{13}),
                 -C(=O)NHC_{1-8}alkylC(=O)(R_{13}), -O-C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
                 -NH-C(=O)NHC_{1-8}alkylC(=O)(R_{13}), -CH_2O-C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
                 -CH<sub>2</sub>NH-C(=O)NHC<sub>1-8</sub>alkylC(=O)(R<sub>13</sub>),
30
                 -OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                 -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                 -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
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```
-OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                        -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                        -SCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                        -OC(=O)CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
  5
                        -OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                        -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                        -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                        -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                        -NHC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
10
                        -SO_2CH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                        -SO<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                        -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>1</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                        -CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                        -CH<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
15
                        -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                        -CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                        -CH<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                        -CH<sub>2</sub>OC(=O)CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                        -CH<sub>2</sub>OC(=O)OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
20
                        -CH_2OC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                       -CH_2NH(C=O)CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                        -CH<sub>2</sub>NHC(=O)OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                        -CH_2NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                        -C(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
25
                        -OC(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                        -OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                        -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                       -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                        -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
30
                       -NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_tCH_2C(=O)(R_{13}),
                        -SO_2CH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                        -SO_2NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
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 $-CH_2OC(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),$

-CH₂OC(=O)OCH₂CH₂O(CH₂CH₂O)_rCH₂C(=O)(R₁₃),

-CH₂OC(=O)NHCH₂CH₂O(CH₂CH₂O)_rCH₂C(=O)(R₁₃),

 $-CH_2NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),$

-CH₂NHC(=O)OCH₂CH₂O(CH₂CH₂O)_rCH₂C(=O)(R_{13}), and

-CH₂NHC(=O)NHCH₂CH₂O(CH₂CH₂O)_rCH₂C(=O)(R_{13});

wherein when R_{11} or R_{12} terminates with a -C(=O)-, R_{13} is selected from

10

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and when R_{11} or R_{12} does not terminate with a -C(=O)-, R_{13} is selected from the group consisting of

BOOK OF HOUSE $\begin{array}{c|c} & & & & \\ & &$ $\begin{array}{c|c}
 & O \\
 & O \\$

 $\begin{cases} -s & \downarrow \\ N & \downarrow \\$ {-s-s(), N H

$$\begin{cases} O & O \\ S & O \\ O & O \\ O$$

wherein the unit -O- $(CH_2CH_2O)_p$ - or p of R_{12} and R_{13} is a polyethylene glycol (PEG) polymer ranging in molecular weight from 750 to 5000 daltons;

r is an integer from 0 to 8;

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Q and Q¹ of substituents R₁₂ and R₁₃ are the same within a given compound and are selected from the group consisting of the C₁₁ saturated chain of lauric acid, the C₁₃ saturated chain of myristoic acid, the C₁₅ saturated chain of palmitoic acid, the C₁₇ saturated chain of stearoic acid,

the C_{17} mono-unsaturated chain of oleoic acid, and the C_{17} di-unsaturated chain of linoleic acid;

Z is selected from the group consisting of hydroxy, -NH₂, -NH-C₁₋₈alkyl,
-N(C₁₋₈alkyl)₂, -O-C₁₋₈alkyl, -O-C₁₋₈alkyl-OH, -O-C₁₋₈alkylC₁₋₈alkoxy,
-O-C₁₋₈alkylcarbonylC₁₋₈alkyl, -O-C₁₋₈alkyl-CO₂H, -O-C₁₋₈alkyl-C(O)O-C₁₋₈alkyl, -O-C₁₋₈alkyl-NH₂, -O-C₁₋₈alkyl-NH-C₁₋₈alkyl,
O-C₁₋₈alkyl-N(C₁₋₈alkyl)₂, -O-C₁₋₈alkylamide, -O-C₁₋₈alkyl-C(O)-NH-C₁₋₈alkyl,
O-C₁₋₈alkyl-C(O)-N(C₁₋₈alkyl)₂, and -NHC(O)C₁₋₈alkyl;

and pharmaceutically acceptable salts, racemic mixtures and enantiomers thereof.

80. The liposome of claim 79 wherein R_{12} is selected from the group consisting of C_{1-6} alkyl(R_{13}), -O- C_{1-6} alkyl(R_{13}),

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-NH-C_{1-4}alkyl(R_{13}), -S-C_{1-6}alkyl(R_{13}), -CH_2O-C_{1-6}alkyl(R_{13}),
                              -CH_2NH-C_{1-6}alkyl(R_{13}), -CH_2S-C_{1-6}alkyl(R_{13}), -C(=O)C_{1-6}alkyl(R_{13}),
                              -O-C(=O)C_{1-6}alkyl(R_{13}), -NH-C(=O)C_{1-8}alkyl(R_{13}),
                              -CH_2O-C(=O)C_{1-8}alkyl(R_{13}), -CH_2NH-C(=O)C_{1-6}alkyl(R_{13}),
  5
                              -C(=O)OC_{1-6}alkyl(R_{13}), -C(=O)NHC_{1-6}alkyl(R_{13}),
                              -O-C(=O)OC_{1-6}alkyl(R_{13}), -O-C(=O)NHC_{1-6}alkyl(R_{13}),
                              -NH-C(=O)OC<sub>1-6</sub>alkyl(R_{13}), -NH-C(=O)NHC<sub>1-6</sub>alkyl(R_{13}),
                              -NH-C(=O)C_{1-6}alkylC(=O)(R_{13}), -CH_2O-C(=O)C_{1-8}alkylC(=O)(R_{13}),
                              -NH-C(=O)NHC_{1-8}alkylC(=O)(R_{13}), -CH_2O-C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
10
                              -CH<sub>2</sub>NH-C(=O)NHC<sub>1-8</sub>alkylC(=O)(R_{13}),
                              -OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                              -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                              -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                              -OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
15
                              -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                              -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                              -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                              -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                              -NHC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
20
                              -SO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                              -SO<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                              -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                              -CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                              -CH<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
25
                              -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                              -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                              -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                              -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                              -NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
30
                              -CH_2OC(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                              -CH_2NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                              -CH<sub>2</sub>NHC(=O)OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>), and
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 $-CH_2NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13});$

wherein when R_{11} or R_{12} terminates with a -C(=O)-, R_{13} is selected from the group consisting of

and when R_{11} or R_{12} does not terminate with a -C(=O)-, R_{13} is selected from the group consisting of

\$-0 HO Q PO HO Q PO PO Q

5

10 81. The liposome of claim 79 wherein R_{12} is selected from the group consisting of $CH_2O-C_{1-6}alkyl(R_{13})$, $-CH_2NH-C_{1-6}alkyl(R_{13})$,

 $-CH_2S-C_{1\text{--}6}alkyl(R_{13}), -NH-C(=O)C_{1\text{--}8}alkyl(R_{13}), \\$

 $-CH_2NH-C(=O)C_{1-6}alkyl(R_{13}), -NH-C(=O)NHC_{1-6}alkyl(R_{13}), \\$

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 $-NH-C(=O)C_{1-6}alkylC(=O)(R_{13}),$

-OCH₂CH₂O(CH₂CH₂O)_rCH₂CH₂(R₁₃),

-NHCH₂CH₂O(CH₂CH₂O)_rCH₂CH₂(R₁₃),

 $-OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),$

-NH(C=O)CH₂O(CH₂CH₂O)_rCH₂CH₂(R_{13}),

-CH₂OCH₂CH₂O(CH₂CH₂O)_rCH₂CH₂(R₁₃),

-CH₂NHCH₂CH₂O(CH₂CH₂O)_rCH₂CH₂(R₁₃),

-CH₂SCH₂CH₂O(CH₂CH₂O)_rCH₂CH₂(R₁₃),

-NH(C=O)CH₂O(CH₂CH₂O)_rCH₂C(=O)(R_{13}), and

 $-CH_2NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}).$

wherein when R_{11} or R_{12} terminates with a -C(=O)-, R_{13} is selected from the group consisting of

and when R_{11} or R_{12} does not terminate with a -C(=O)-, R_{13} is selected from the group consisting of

$$\begin{array}{c|c}
 & O \\
 & O \\$$

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 $\{-N + O(O) + O$ $\{-N \\ H \}$

82. The liposome of claim 79 wherein said $-O-(CH_2CH_2O-)_{p-}$ or

 R_{12} and R_{13} is a polyethylene glycol (PEG) polymer ranging in molecular weight from 2000 to 5000 daltons.

- The liposome of claim 79 wherein wherein Q and Q¹ of substituents
 R₁₂ and R₁₃ are the same within a given compound and are selected from the group consisting of the C₁₅ saturated chain of palmitoic acid, the C₁₇ saturated chain of stearoic acid, and the C₁₇ mono-unsaturated chain of oleoic acid.
- 10 84. The liposome of claim 79 wherein

W is preferably is selected from the group consisting of $-C_{0.4}$ alkyl(R₁),

 $-C_{1-4}$ alkyl (R_{1a}) , $-C_{0-4}$ alkyl-aryl (R_{1},R_{8}) , $-C_{0-4}$ alkyl-heterocyclyl (R_{1},R_{8}) ,

 $-C_{0-4}$ alkoxy (R_1) , $-C_{0-4}$ alkoxy-aryl (R_1,R_8) , and $-C_{0-4}$ alkoxy-heterocyclyl (R_1,R_8) ;

15 R_1 is $-N(R_4)(R_6)$, -heterocyclyl(R_8) or -heteroaryl(R_8);

$$R_{1a}$$
 is $-C(R_4)(=N-R_4)$, $-C(=N-R_4)-N(R_4)_2$, $-C(=N-R_4)-N(R_4)(R_6)$,

$$-C(=N-R_4)-N(R_4)-C(=O)-R_4$$
, $-C(=N-R_4)-N(R_4)-C(=O)-N(R_4)_2$,

$$-C(=N-R_4)-N(R_4)-CO_2-R_4$$
, $-C(=N-R_4)-N(R_4)-SO_2-C_{1-4}alkyl(R_7)$ or

20 $-C(=N-R_4)-N(R_4)-SO_2-N(R_4)_2$;

30

 R_4 is hydrogen or $-C_{1-4}$ alkyl(R_7);

$$R_5$$
 is -C(=O)- R_4 , -C(=O)- $N(R_4)_2$, -C(=O)-cycloalkyl(R_8),

25 -C(=O)-heterocyclyl(R_8), -C(=O)-aryl(R_8), -C(=O)-heteroaryl(R_8),

 $-C(=O)-N(R_4)$ -cycloalkyl(R₈), $-C(=O)-N(R_4)$ -aryl(R₈), $-CO_2-R_4$,

 $-CO_2$ -cycloalkyl(R₈), $-CO_2$ -aryl(R₈), $-C(R_4)(=N-R_4)$, $-C(=N-R_4)-N(R_4)$,

 $-C(=N-R_4)-N(R_4)(R_6)$, $-C(=N-R_4)-N(R_4)-C(=O)-R_4$,

 $-C(=N-R_4)-N(R_4)-C(=O)-N(R_4)_2$, $-C(=N-R_4)-N(R_4)-CO_2-R_4$,

 $-C(=N-R_4)-N(R_4)-SO_2-C_{1-4}alkyl(R_7), -C(=N-R_4)-N(R_4)-SO_2-N(R_4)_2,$

 $-N(R_4)-C(R_4)(=N-R_4)$, $-N(R_4)-C(=N-R_4)-N(R_4)$, $-N(R_4)-C(=N-R_4)-N(R_4)$, $-N(R_4)-C(=N-R_4)$

 $-N(R_4)-C(=N-R_4)-N(R_4)-C(=O)-R_4$, $-N(R_4)-C(=N-R_4)-N(R_4)-C(=O)-N(R_4)_2$,

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-N(R_4)-C(=N-R_4)-N(R_4)-CO_2-R_4, -N(R_4)-C(=N-R_4)-N(R_4)-SO_2-C_{1-4}alkyl(R_7),\\ -N(R_4)-C(=N-R_4)-N(R_4)-SO_2-N(R_4)_2, -SO_2-C_{1-4}alkyl(R_7), -SO_2-N(R_4)_2,\\ -SO_2-cycloalkyl(R_8) \text{ or } -SO_2-aryl(R_8);
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5 R_6 is -heterocyclyl(R_8) or -heteroaryl(R_8);

R₇ is one to two substituents independently selected from hydrogen,

$$-C_{1-4}alkoxy(R_9)$$
, $-NH_2$, $-NH-C_{1-4}alkyl(R_9)$, $-N(C_{1-4}alkyl(R_9))_2$, $-C(=O)H$,

$$-C(=O)-C_{1-4}alkyl(R_9)$$
, $-C(=O)-NH_2$, $-C(=O)-NH-C_{1-4}alkyl(R_9)$,

$$-C(=O)-N(C_{1-4}alkyl(R_9))_2$$
, $-C(=O)-NH-aryl(R_{10})$, $-C(=O)-cycloalkyl(R_{10})$,

-C(=O)-heterocyclyl(
$$R_{10}$$
), -C(=O)-aryl(R_{10}), -C(=O)-heteroaryl(R_{10}), -CO₂H,

$$-CO_2-C_{1-4}alkyl(R_9)$$
, $-CO_2-aryl(R_{10})$, $-C(=NH)-NH_2$, $-SH$, $-S-C_{1-4}alkyl(R_9)$,

$$-S-C_{1-4}$$
alkyl $-S-C_{1-4}$ alkyl (R_9) , $-S-C_{1-4}$ alkyl $-C_{1-4}$ alkoxy (R_9) ,

$$-S-C_{1-4}$$
alkyl-NH- C_{1-4} alkyl(R_9), $-SO_2-C_{1-4}$ alkyl(R_9), $-SO_2-NH_2$,

-SO₂-NH-C₁₋₄alkyl(R₉), -SO₂-N(C₁₋₄alkyl(R₉))₂, -SO₂-aryl(R₁₀), cyano, (halo)₁₋₃, hydroxy, nitro, oxo, -cycloalkyl(R₁₀), -heterocyclyl(R₁₀), -aryl(R₁₀) or -heteroaryl(R₁₀);

R₈ is one to four substituents independently selected from hydrogen,

$$-C_{1-4}alkyl(R_9)$$
, $-C(=O)H$, $-C(=O)-NH_2$, $-C(=O)-NH-C_{1-4}alkyl(R_9)$,

-C(=O)-N(
$$C_{1-4}$$
alkyl(R_9))₂, -CO₂H, -CO₂- C_{1-4} alkyl(R_9) or -SO₂-NH₂ when

attached to a nitrogen atom; and, wherein R₈ is one to four substituents

independently selected from hydrogen, -C₁₋₄alkyl(R₉), -C₁₋₄alkoxy(R₉),

$$-O-aryl(R_{10}), -C(=O)H, -C(=O)-NH_2, -C(=O)-NH-C_{1-4}alkyl(R_9),$$

$$-C(=O)-N(C_{1-4}alkyl(R_9))_2$$
, $-CO_2H$, $-CO_2-C_{1-4}alkyl(R_9)$, $-SO_2-NH_2$, $-NH_2$,

-NH-C₁₋₄alkyl(R_9), -N(C₁₋₄alkyl(R_9))₂, cyano, halo, hydroxy, nitro or oxo when attached to a carbon atom;

-SO₂-N(C₁₋₄alkyl)₂, cyano, (halo)₁₋₃, hydroxy, nitro or oxo;

```
R<sub>10</sub> is one to four substituents independently selected from hydrogen, -C<sub>1-4</sub>alkyl,
                      -C(=O)H, -C(=O)-C_{1-4}alkyl, -C(=O)-NH_2, -C(=O)-NH-C_{1-4}alkyl,
                      -C(=O)-N(C_{1-4}alkyl)_2, -CO_2H, -CO_2-C_{1-4}alkyl, -SO_2-C_{1-4}alkyl, -SO_2-NH_2,
 5
                      -SO<sub>2</sub>-NH-C<sub>1-4</sub>alkyl or -SO<sub>2</sub>-N(C<sub>1-4</sub>alkyl)<sub>2</sub> when attached to a nitrogen atom; and,
                      wherein R_{10} is one to four substituents independently selected from hydrogen,
                      -C_{1-4}alkyl, -C_{1-4}alkoxy, -C(=O)H, -C(=O)-C_{1-4}alkyl, -C(=O)-NH_2,
                      -C(=O)-NH-C_{1-4}alkyl, -C(=O)-N(C_{1-4}alkyl)_2, -CO_2H, -CO_2-C_{1-4}alkyl,
                      -SO_2-C_{1-4}alkyl, -SO_2-NH_2, -SO_2-NH-C_{1-4}alkyl, -SO_2-N(C_{1-4}alkyl)<sub>2</sub>, -NH_2,
10
                      -NH-C<sub>1-4</sub>alkyl, -N(C<sub>1-4</sub>alkyl)<sub>2</sub>, cyano, halo, hydroxy, nitro or oxo when attached
                      to a carbon atom;
                      R_{2a} is -cycloalkyl(R_8)(R_{11}), -heterocyclyl(R_8)(R_{12}), -aryl(R_8)(R_{12}) or
                      -heteroaryl(R_8)(R_{12});
15
                      q is 1, 2 or 3.
                      R_{11} is selected from the group consisting of -C_{1-8}alkyl(R_{13}),
                      -O-C_{1-8}alkyl(R_{13}), -NH-C_{1-8}alkyl(R_{13}),
20
                      -S-C_{1-8}alkyl(R_{13}), -C(=O)C_{1-8}alkyl(R_{13}), -O-C(=O)C_{1-8}alkyl(R_{13}),
                      -NH-C(=O)C_{1-8}alkyl(R_{13}), -C(=O)OC_{1-8}alkyl(R_{13}), -C(=O)NHC_{1-8}alkyl(R_{13}),
                      -O-C(=O)OC_{1-8}alkyl(R_{13}), -O-C(=O)NHC_{1-8}alkyl(R_{13}),
                      -O-C(=O)C_{1-8}alkylC(=O)(R_{13}), -NH-C(=O)C_{1-8}alkylC(=O)(R_{13}),
                      -C(=O)OC_{1-8}alkylC(=O)(R_{13}), -O-C(=O)OC_{1-8}alkylC(=O)(R_{13}),
25
                      -NH-C(=O)OC_{1-8}alkylC(=O)(R_{13}), -C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
                      -O-C(=O)NHC_{1-8}alkylC(=O)(R_{13}), -NH-C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
                      -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                      -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                      -SO_2NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
30
                      -C(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                      -OC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
                      -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
```

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-NHC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                             and -SO_2NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13});
                             R_{12} is selected from the group consisting of
  5
                             -C_{1-6}alkyl(R_{13}), -O-C_{1-6}alkyl(R_{13}),
                             -NH-C_{1-4}alkyl(R_{13}), -S-C_{1-6}alkyl(R_{13}), -CH_2O-C_{1-6}alkyl(R_{13}),
                             -CH_2NH-C_{1-6}alkyl(R_{13}), -CH_2S-C_{1-6}alkyl(R_{13}), -C(=O)C_{1-6}alkyl(R_{13}),
                             -O-C(=O)C_{1-6}alkyl(R_{13}), -NH-C(=O)C_{1-8}alkyl(R_{13}),
                             -CH_2O-C(=O)C_{1-8}alkyl(R_{13}), -CH_2NH-C(=O)C_{1-6}alkyl(R_{13}),
10
                             -C(=O)OC_{1-6}alkyl(R_{13}), -C(=O)NHC_{1-6}alkyl(R_{13}),
                             -O-C(=O)OC_{1-6}alkyl(R_{13}), -O-C(=O)NHC_{1-6}alkyl(R_{13}),
                             -NH-C(=O)OC_{1-6}alkyl(R_{13}), -NH-C(=O)NHC_{1-6}alkyl(R_{13}),
                             -NH-C(=O)C_{1-6}alkylC(=O)(R_{13}), -CH<sub>2</sub>O-C(=O)C_{1-8}alkylC(=O)(R_{13}),
                             -NH-C(=O)NHC_{1-8}alkylC(=O)(R_{13}), -CH_2O-C(=O)NHC_{1-8}alkylC(=O)(R_{13}),
15
                             -CH<sub>2</sub>NH-C(=O)NHC<sub>1-8</sub>alkylC(=O)(R_{13}),
                             -OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                             -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                             -SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                             -OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
20
                             -NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                             -OC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                             -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                             -NHC(=O)OCH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),
                             -NHC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R_{13}),
25
                             -SO_2CH_2CH_2O(CH_2CH_2O)_rCH_2CH_2(R_{13}),\\
                             -SO<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                             -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                             -CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
                             -CH<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>),
30
                             -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                             -OC(=O)NHCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>r</sub>CH<sub>2</sub>C(=O)(R<sub>13</sub>),
                             -NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),
```

-NHC(=O)OCH₂CH₂O(CH₂CH₂O)_rCH₂C(=O)(R_{13}),

-NHC(=O)NHCH₂CH₂O(CH₂CH₂O)_rCH₂C(=O)(R₁₃),

 $-CH_2OC(=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),$

 $-CH_2NH(C=O)CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13}),$

-CH₂NHC(=O)OCH₂CH₂O(CH₂CH₂O)_rCH₂C(=O)(R₁₃), and

 $-CH_2NHC(=O)NHCH_2CH_2O(CH_2CH_2O)_rCH_2C(=O)(R_{13});$

wherein when R_{11} or R_{12} terminates with a -C(=O)-, R_{13} is selected from the group consisting of

and when R_{11} or R_{12} does not terminate with a -C(=O)-, R_{13} is selected from the group consisting of

$$\begin{array}{c|c}
 & O \\
 & O \\$$

said -O- $(CH_2CH_2O)_p$ - or -O p of R_{12} and R_{13} is a polyethylene glycol (PEG) polymer ranging in molecular weight from 750 to 5000 daltons;

r is an integer from 0 to 8;

5

Q and Q^1 of substituents R_{12} and R_{13} are the same within a given compound and are selected from the group consisting of

the C₁₁ saturated chain of lauric acid,

the C₁₅ saturated chain of palmitoic acid,

the C_{17} saturated chain of stearoic acid,

the C₁₇ mono-unsaturated chain of oleoic acid, and

the C₁₇ di-unsaturated chain of linoleic acid;

15

10

Z is selected from the group consisting of hydroxy, -NH₂, -NH-C₁₋₈alkyl, -N(C₁₋₈alkyl)₂, -O-C₁₋₈alkyl, -O-C₁₋₈alkyl-OH, -O-C₁₋₈alkylC₁₋₄alkoxy, -O-C₁₋₈alkylcarbonylC₁₋₄alkyl, -O-C₁₋₈alkyl-CO₂H, -O-C₁₋₈alkyl-C(O)O-C₁₋₆alkyl, -O-C₁₋₈alkyl-O-C(O)C₁₋₈alkyl, -O-C₁₋₈alkyl-NH₂, -O-C₁₋₈alkyl-NH-C₁₋₈alkyl, -O-C₁₋₈alkyl-N(C₁₋₈alkyl)₂, -O-C₁₋₈alkylamide -O-C₁₋₈alkyl-C(O)-NH-C₁₋₈alkyl, -O-C₁₋₈alkyl-C(O)-N(C₁₋₈alkyl)₂ and

20

85. The liposome of claim 79 wherein

 $-NHC(O)C_{1-8}alkyl.$

W is preferably $-C_{0-4}$ alkyl(R_1) or $-C_{0-4}$ alkyl-phenyl(R_1 , R_8);

25

 R_1 is $-N(R_4)(R_6)$, -tetrahydropyrimidinyl(R_8) or -tetrahydro-1,8-naphthyridinyl(R_8);

 $R_{1a} \text{ is } -C(R_4)(=N-R_4), -C(=N-R_4)-N(R_4)_2, -C(=N-R_4)-N(R_4)(R_6),$ $-C(=N-R_4)-N(R_4)-C(=O)-R_4, -C(=N-R_4)-N(R_4)-C(=O)-N(R_4)_2,$ $-C(=N-R_4)-N(R_4)-CO_2-R_4, -C(=N-R_4)-N(R_4)-SO_2-C_{1-4}alkyl(R_7) \text{ or }$

 $-C(=N-R_4)-N(R_4)-SO_2-N(R_4)_2$;

R₄ is hydrogen;

5

$$\begin{split} &R_5 \text{ is -C(=O)-R_4, -C(=O)-N(R_4)_2, -CO_2-R_4, -C(R_4)(=N-R_4), -C(=N-R_4)-N(R_4)_2,} \\ &-C(=N-R_4)-N(R_4)(R_6), -N(R_4)-C(R_4)(=N-R_4), -N(R_4)-C(=N-R_4)-N(R_4)_2,} \\ &-N(R_4)-C(=N-R_4)-N(R_4)(R_6), -SO_2-C_{1-4}alkyl(R_7) \text{ or -SO}_2-N(R_4)_2;} \end{split}$$

10

 R_6 is -dihydroimidazolyl(R_8), -tetrahydropyridinyl(R_8), -tetrahydropyrimidinyl(R_8) or -pyridinyl(R_8);

R₇ is hydrogen;

15

 R_8 is one to four substituents independently selected from hydrogen or $-C_{1-4}$ alkyl(R_9) when attached to a nitrogen atom; and, wherein R_8 is one to four substituents independently selected from hydrogen, $-C_{1-4}$ alkyl(R_9), $-C_{1-4}$ alkoxy(R_9) -O-aryl(R_{10}) or hydroxy when attached to a carbon atom;

20

 R_9 is hydrogen, $-C_{1-4}$ alkoxy, $-NH_2$, $-NH-C_{1-4}$ alkyl, $-N(C_{1-4}$ alkyl)₂, (halo)₁₋₃ or hydroxy;

R₁₀ is hydrogen;

25

 $R_{2a} \ is \ -tetrahydropyrimidinyl(R_8)(R_{12}) \ , -1, 3-benzodioxolyl(R_8)(R_{12}),$ $-dihydrobenzofuranyl(R_8)(R_{12}), \ -tetrahydroquinolinyl(R_8)(R_{12}),$ $-phenyl(R_8)(R_{12}), \ -naphthalenyl(R_8)(R_{12}), \ -pyrimidinyl(R_8)(R_{12}) \ or \ -quinolinyl(R_8)(R_{12});$

30

q is 1 or 2;

 R_{12} is selected from the group consisting of $-CH_2$ -O- $(CH_2)_4(R_{13})$ -,

```
-CH_2-NH-(CH_2)_4(R_{13})-,
                              -CH_2-S-(CH_2)_4(R_{13})-,
                              -CH_2-O-(CH_2)_6(R_{13})-
                              -CH_2-NH-(CH_2)_6(R_{13})-,
  5
                              -CH_2-S-(CH_2)_6(R_{13})-
                              -NH-C(=O)-(CH_2)_4(R_{13})-,
                              -NH-C(=O)-(CH_2)_7(R_{13})-,
                              -NH-C(=O)NH-(CH_2)_3(R_{13})-,
                              -NH-C(=O)NH-(CH_2)_6(R_{13})-,
10
                              -CH_2NH-C(=O)NH-(CH_2)_2(R_{13})-
                              -CH_2NH-C(=O)NH-(CH_2)_5(R_{13})-
                              -NHC(=O)-(CH_2)_2-C(=O)(R_{13})-
                              -NHC(=O)-(CH_2)_3-C(=O)(R_{13})-,
                              -NHC(=O)-(CH_2)_4-C(=O)(R_{13})-,
                              -OCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>)-,
15
                              -NHCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>)-,
                              -OCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>)-,
                              -NHCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>)-,
                              -OCH_2CH_2OCH_2C(=O)(R_{13})-
20
                              -OCH_2CH_2OCH_2CH_2OCH_2C(=O)(R_{13})-,
                              -NHC(=O)CH_2OCH_2CH_2(R_{13})-
                              -NHC(=O)CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>)-,
                              -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>)-,
                              -CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>)-,
25
                              -CH<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>)-,
                              -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>)-,
                              -CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>)-,
                              -CH<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>(R<sub>13</sub>)-,
                              -CH<sub>2</sub>NHC(=O)CH<sub>2</sub>OCH<sub>2</sub>C(=O)(R<sub>13</sub>)-, and
30
                              -NHC(=O)CH_2OCH_2C(=O)(R_{13})-;
```

wherein when R₁₁ or R₁₂ terminates with a -C(=O)-, R₁₃ is selected from the

group consisting of

and

and when R_{11} or R_{12} does not terminate with a -C(=O)-, R_{13} is selected from the group consisting of

$$\begin{array}{c|c}
 & O \\
 & O \\$$

10

$$\begin{array}{c|c}
 & O \\
 & O \\$$

$$\{-N, -N, -1\}$$

5

10

15

25

wherein said -O-(CH₂CH₂O-)_p- or p of R₁₂ and R₁₃ is a polyethylene glycol (PEG) polymer selected from 2000 (PEG 2000), 3400 (PEG 3400), or 5000 (PEG 5000) Daltons;

r is an integer from 0 to 8;

Q and Q^1 of substituents R_{12} and R_{13} are the same within a given compound and is the C_{17} saturated chain of stearoic acid;

Z is selected from the group consisting of hydroxy, -NH₂, -NH-C₁₋₈alkyl, -N(C₁₋₈alkyl)₂, -O-C₁₋₈alkyl, -O-C₁₋₈alkyl-OH, -O-C₁₋₈alkylC₁₋₄alkoxy, -O-C₁₋₈alkylcarbonylC₁₋₄alkyl, -O-C₁₋₈alkyl-CO₂H, -O-C₁₋₈alkyl-C(O)O-C₁₋₆alkyl, -O-C₁₋₈alkyl-O-C(O)C₁₋₈alkyl, -O-C₁₋₈alkyl-NH₂, -O-C₁₋₈alkyl-NH-C₁₋₈alkyl, -O-C₁₋₈alkyl-N(C₁₋₈alkyl)₂, -O-C₁₋₈alkylamide -O-C₁₋₈alkyl-C(O)-NH-C₁₋₈alkyl, -O-C₁₋₈alkyl-C(O)-N(C₁₋₈alkyl)₂ and -NHC(O)C₁₋₈alkyl.

20 86. The therapeutic liposome composition of claim 78 wherein the therapeutic agent is selected from the group consisting of steroids, immunosuppressants, antihistamines, non-steroidal anti-asthamtics, non-steroidal anti-inflammatory agents, cyclooxygenase-2 inhibitors, cytotoxic agents, gene therapy agents, radiotherapy agents, and imaging agents.

87. The therapeutic liposome composition of claim 78 wherein the therapeutic agent is a cytotoxic drug.

- 88. The therapeutic liposome composition of claim 87 wherein the cytotoxic drug is selected from the group consisting of anthracycline antibiotics, platinum compounds, topoisomerase 1 inhibitors, and vinca alkaloids.
- 5 89. The therapeutic liposome composition of claim 87 wherein the cytotoxic agent is selected from the group consisting of doxorubicin, daunorubicin, epirubicin, idarubicin, cisplatin, carboplatin, ormaplatin, oxaliplatin, zeniplatin, enloplatin, lobaplatin, spiroplatin, ((-)-(R)-2-aminomethylpyrrolidine (1,1-cyclobutane dicarboxylato)platinum), (SP-4-3(R)-1,1-cyclobutane-dicarboxylato(2-)-(2-methyl-1,4-butanediamine-N,N')platinum), nedaplatin, (bis-acetato-ammine-dichloro-cyclohexylamine-platinum(IV), topotecan, irinotecan, (7-(4-methylpiperazino-methylene)-10,11-ethylenedioxy-20(S)-camptothecin), 7-(2-(N-isopropylamino)ethyl)-(20S)-camptothecin, 9-aminocamptothecin, 9-nitrocamptothecin, vincristine, vinblastine, vinleurosine, vinrodisine, vinorelbine, and vindesine.
 - 90. The therapeutic liposome composition of claim 87 wherein the cytotoxic agent is selected from the group consisting of doxorubicin, daunorubicin, epirubicin, idarubicin, cisplatin, including salts.

ABSTRACT OF THE INVENTION

ABSTRACT

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The present invention relates to the synthesis and biological application of piperidinoyl carboxylic acid integrin antagonists affinity moiety of IFormula (I):

Formula (I)

and Formula (II):

$$Z$$
 $(CH_2)_q$
 R_2

Formula (II)

These affinity moieties maybe used with imaging agents or liposomes to target cells that express the $\alpha_V \beta_3$, $\alpha_V \beta_5$, or $\alpha_V \beta_6$ integrin receptors.